Table O.4.14 (1) Financial Cost Estimate Sheet for Transportation Sector, Phase III (2021 - 2030) (1/2)

·	T					US\$1.0=T144.0=	JY108.0	unit:million	
Cost	]	Sector / District / Cost Items	etor / District / Cost Items		Quantity	Investment Cost (US\$)			
code	╂—-				1	Foreign Currency	Local Currency	Total, equivalent	
20-1	Spe	cial Road, sp-1 (arterial road), sp-2, sp-3		]			-		
	1)	Direct construction cost		LS	1	0	23.8	23,8	
	╄	VAT, 20 %				0	4.8	4.8	
	<del> </del>	sub total a)	L			0	28.6	28.6	
	2)	Land Acquisition and Compensation Cost	(T100/m2)	m2	475,000	0	0.3	0.3	
	3)	Administration Expenses, 5 % of sub total a)				0	1.4	1.4	
	4)	Engineerinf Services Cost w/VAT, 10 % of sub total a)				0	2.9	2.9	
	5)	Contingency, 10 % of sub total a)	1				2.9	2.9	
	<u> </u>	Total cost of Project A				0	36.0	36.0	

-	т—					US\$1.0=T144.0=	JY108.0	unit:million	
Cost	İ	Sector / District / Cost Items	Unit	<b>————</b>	Investment Cost (US\$)				
code				1.		Foreign Currency	Local Currency	Total, equivalent	
20-2	Mai	on streets of City Importance, Arterial road, (a-1 to a-1)	D) .	[					
	1)_	Direct construction cost		LS	1	0	3.6	3.6	
	L.	VAT, 20 %				0	0.7	0.7	
	<u> </u>	sub total a)		1		0	4.3	4.3	
	2)_	Land Acquisition and Compensation Cost	(T100/m2)	m2	62,400	0	0.0	0.0	
	3)	Administration Expenses, 5 % of sub total a)				0	0.2	0.0	
	4)	Engineerinf Services Cost w/VAT, 10 % of sub total a)		†		0	0.4	0.4	
	5)	Contingency, 10 % of sub total a)	<b>1</b>	t		0	0.4		
	L_,	Total cost of Project A				0	5.4	5.4	

Cost							US\$1.0=T144.0=	JY108.0	unit:million	
		Sector / District / Cost Items			Unit	Quantity	Investment Cost (US\$)			
code		لنبك		l ''	Foreign Currency		Local Currency	Total equivalent		
20-3	Main	streets	of City importance, primary road (p-1 to p-12)	1					1	
	1)	Direct	construction cost	T	LS	1	0	0.0	0.0	
			VAT, 20 %				0	0.0		
			sub total a)	<u> </u>	t		<u>&gt;</u>		0.0	
	2)	Land A	equisition and Compensation Cost	(T100/m2)	m2		- 0	0.0	0.0	
	3)	Admini	stration Expenses, 5 % of sub total a)	1(1111111111111111111111111111111111111	1		0	0.0	0.0	
	4)	Engine	erinf Services Cost w/VAT, 10 % of sub total a)		† · · · · · · · · · · · · · · · · · · ·		0	0.0	<u>-</u>	
			gency, 10 % of sub total a)	<del> </del>			- 0		0.0	
			ost of Project A				0	0.0	0.0	

Cost	ĭ	Sector / District / Cost Items		T		US\$1.0=T144.0=.	1100.0	unit:million
code		Sector / District / Cost Items	Unit	Quantity	Investment Cost (US\$)			
	<del>                                     </del>			1		Foreign Currency	Local Currency	Total equivalent
20-4	Maii	streets of Regional importance, secondary road (s-1 to	s-46)	1		1		
	1)	Direct construction cost		LS	1	0	11.1	11.1
		VAT, 20 %	1			0	2.2	2.2
		sub total a)		<u> </u>		0	13.3	13.3
	2)	Land Acquisition and Compensation Cost	(T100/m2)	m2	221,000	0	0.2	
	3)	Administration Expenses, 5 % of sub total a)	T	1		0	0.7	0.2
	4)	Engineerinf Services Cost w/VAT, 10 % of sub total a)	<u> </u>	<u> </u>		0	1.3	0.7
	5)	Contingency, 10 % of sub total a)		<del> </del>		- 0	1.3	1.3
		Total cost of Project A		†	· . <u>-</u>	- V	16.8	1.3

Cost	T	Sector / District / Cost Items			US\$1.0=T144.0=	JY108.0	unit:million		
code		Sector / District / Cost items		Unit	Quantity	Investment Cost (US\$)			
	-		<u> </u>	I		Foreign Currency	Local Currency	Total, equivalent	
20-5	Stree	ets and roads of local importance, tertialy road TR-1, 2,	3)	1					
	1)	Direct construction cost		LS	1	0	3.6	3.6	
	ļ	VAT, 20 %		T		0	0.7	0.7	
	<u> </u>	sub total a)		T		n	4.3	0.7	
	2)	Land Acquisition and Compensation Cost	(T100/m2)	m2	118,500	0	0.1	4.3	
·····	3)	Administration Expenses, 5 % of sub total a)	1		210,000	0	0.1	0.1	
	4)	Engineerinf Services Cost w/VAT, 10 % of sub total a)				0	0.4	0.2	
	5)	Contingency, 10 % of sub total a)		<b></b>	<del></del>	0		0.4	
		Total cost of Project A				0	0.4 5,5	0.4	

Cost				·		US\$1.0-T144.0=	TY108.0	unit:million
		Sector / District / Cost Items	Sector / District / Cost Items		Quantity	<u>ln</u>	vestment Cost (US	\$)
code						Foreign Currency	Local Currency	Total, equivalent
0-6		ey Bus project	1			1		
	1)	Direct construction cost		LS	1	0	: 0	0.0
		VAT, 20 %				0		
		sub total a)	<b></b>	<del> </del>				0.0
	2)	Land Acquisition and Compensation Cost	(T100/m2)	m2	0	0	<u>v</u>	0.0
	3)	Administration Expenses, 5 % of sub total a)				- 0	0	0.0
	4)	Engineerinf Services Cost w/VAT, 10 % of sub total a)	†	<del>                                     </del>		- 0		0.0
		Contingency, 10 % of sub total a)	<del> </del>		ļ	- 0	0	0.0
	ì	Total cost of Project A	<del> </del>	<del> </del>		<u> </u>	0	0.0

### Table O.4.14 (1) Financial Cost Estimate Sheet for Transportation Sector, Phase III (2021 - 2030) (2/2)

		<b></b>					US\$1.0=T144.0=.	JY108.0	unit:million	
Cost	Sector / District / Cost Items				Unit	Quantity	Investment Cost (US\$)			
code	le L			L		Foreign Currency	Local Currency	Total, equivalent		
20-7	Brid	ge (b-2	to b-24)							
	1)	Direct	construction cost		LS	1	0	5.3	5.3	
	<u> </u>	<u> </u>	VAT, 20 %	<u> </u>			0	1.1	1.1	
	<u> </u>		sub total a)				0	6.4	6.4	
	2)	Land,	Acquisition and Compensation Cost	(T100/m2)	m2	8,800	0	0.0	0.0	
	3)	Admir	nistration Expenses, 5 % of sub total a)		<u> </u>		0	0.3	0.3	
	4)	Engine	cerinf Services Cost w/VAT, 10 % of sub total a)	<u> </u>	L		Ō	0.6	0,6	
	5)	Contin	gency, 10 % of sub total a)				0	0.6	0,6	
		Total	cost of Project A				0	8.0	8.0	

			· · · · · · · · · · · · · · · · · · ·				US\$1.0=T144.0=	JY108.0	unit:million	
Cost		Sector / District / Cost Items			Unit	Quantity	Investment Cost (US\$)			
code	<del></del>			1	Foreign Currency		Local Currency	Total, equivalent		
20-8	Brid	ge (f-3 (	lo (-15)							
	1)	Direct	construction cost		LS	1	0	78.9	78.9	
	<u> </u>		VAT, 20 %				0	15.8	15.8	
			sub total a)				0	94.7	94.7	
	2)	Land A	Acquisition and Compensation Cost	(T100/m2)	m2	64,320	0	0.0	0.0	
	3)	Admin	istration Expenses, 5 % of sub total a)				0	4.7	4.7	
	4)	Engine	erinf Services Cost w/VAT, 10 % of sub total a)				0	9.5	9.5	
	5)	Contin	gency, 10 % of sub total a)				0	9,5	9.5	
		Total o	cost of Project A				0	118.4	118.4	

		γ					US\$1.0=T144.0=	JY108.0	unit:million	
Cost	Sector / District / Cost Items				Unit	Quantity	Investment Cost (US\$)			
code					<u> </u>		Foreign Currency	Local Currency	Total, equivalent	
20-9	Tunn	el (t-1)		1						
	1)	Direct	construction cost		LS	1	0	30.0	30.0	
			VAT, 20 %		I		. 0	6.0	6.0	
			sub total a)		T		0	36.0	36.0	
	2)	Land A	Acquisition and Compensation Cost	(T100/m2)	m2	20,000	0	0.0	0.0	
	3)	Admin	istration Expenses, 5 % of sub total a)	L			0	1.8	1.8	
	4)	Engine	erinf Services Cost w/VAT, 10 % of sub total a)				0	3.6	3.6	
	5)	Contin	gency, 10 % of sub total a)	I	Ι		0	3.6	3.6	
L		Total c	ost of Project A				0	45.0	45.0	

* *	·			US\$1.0=T144.0=JY108.0 unit:mil				
Cost		Sector / District / Cost Items		Unit	Quantity	In	vestment Cost (US	3\$)
code						Foreign Currency	Local Currency	Total, equivalent
20-12	LRT	(L-3)	1	1				
	1)	Direct construction cost		LS	1	0.0	157.5	157.5
	<u> </u>	VAT, 20 %		i		0.0	31.5	31.5
	<u> </u>	sub total a)				0.0	189.0	189.0
	2)	Land Acquisition and Compensation Cost	(T100/m2)	m2	46,000	0.0	0.0	0.0
	3)	Administration Expenses, 5 % of sub total a)		Ī		0.0	9,5	9.5
	4)	Engineerinf Services Cost w/VAT, 10 % of sub total a)		1.		0.0	18.9	18.9
	5)	Contingency, 10 % of sub total a)				0.0	18.9	18.9
	]	Total cost of Project A	Ι			0.0	236.3	236.3

	,						US\$1.0=T144.0=.	TY108.0	unit:million	
Cost	e   1   1   1   1   1   1   1   1   1			Unit	Quantity	Investment Cost (US\$)				
code						Foreign Currency	Local Currency	Total, equivalent		
20-14	Ten	minal (T	-2)	Ι						
· .	1)	Direct	construction cost		LS	1	0	0.3	0.3	
	<u>.</u>		VAT, 20 %	L.			0	0.1	0.1	
			sub total a)		-		0	0.4	0.4	
	2)	Land /	Acquisition and Compensation Cost	(T100/m2)	m2	3,000	0	0.0	0.0	
	3)	Admin	istration Expenses, 5 % of sub total a)				0	0.0	0.0	
	4)	Engine	serinf Services Cost w/VAT, 10 % of sub total a)				0	0.0	0.0	
	5)	Contin	gency, 10 % of sub total a)				0	0.0	0.0	
		Total o	cost of Project A		I		0	0.5	0.5	

							US\$1.0=T144.0=.	JY 108.0	unit:million	
Cost			Sector / District / Cost Items		Unit	Quantity	Investment Cost (US\$)			
code		1, 4	A particular to the second of		l		Foreign Currency	Local Currency	Total, equivalent	
20-18	Traf	lic mana	gement			1.00				
	1)	Direct	construction cost		LS	1	0	0.7	0.7	
	L		VAT, 20 %				0	0.1	0.1	
	1	· · ·	sub total a)	<u></u>			0	0.8	0.8	
	2)	Land A	Acquisition and Compensation Cost	(T100/m2)	m2	3,860	0	0.0	0.0	
	3)	Admin	istration Expenses, 5 % of sub total a)				0	0.0	0.0	
	4)		erinf Services Cost w/VAT, 10 % of sub total a)				0	0.1	0.1	
	5)	Contin	gency, 10 % of sub total a)		T		0	0.1	0.1	
<u> </u>		Total c	ost of Project A				0	1.1	1.1	

Table O.4.14 (2) Financial Cost Estimate Sheet for Water Resources Sector, Phase III (2021-2030)

						US\$1.0=T144.0=	JY108.0	unit:million
Cost		Sector / District / Cost Items		Unit	Quantity	In	vestment Cost (US	\$)
code						Foreign Currency	Local Currency	Total, equivalent
30-1	IKC	-Ishim Pipeline Project						
	1)	Direct construction cost		LS	1	0	17.4	17.4
		VAT, 20 %				0	3.5	3.5
	1	sub total a)				0	20.9	20.9
	2)	Land Acquisition and Compensation Cost, 1 % of sub tota	ia)	LS	1	0	0.2	0.2
	3)	Administration Expenses, 5 % of sub total a)		LS	1	0	1.0	1.0
	4)	Engineerinf Services Cost w/VAT, 10 % of sub total a)		LS	1	0	2.1	2.1
	5)	Contingency, 10 % of sub total a)		LS	1	0	2.1	2.1
	T.	Total cost of Project A			<u> </u>	0	26.3	26.3
							·	<u> </u>
	1							
	T			L				
	T				l			
	1							
	1			T		1		T

Table O.4.14 (3) Financial Cost Estimate Sheet for Water Supply Sector, Phase III (2021-2030)

						US\$1.0=T144.0=.	JY108.0	unit:million
Cost	T	Sector / District / Cost Items		Unit	Quantity	Įn.	vestment Cost (US	\$)
code	ļ					Foreign Currency	Local Currency	Total, equivalent
40-6	Wat	er Supply - 3rd Stage			<u>.</u>			
	1)	Direct construction cost	Ī	LS	1	0	55.8	55,8
	-	VAT. 20 %				0	11.2	11,2
	1	sub total a)		T		0	67.0	67.0
	2)	Land Acquisition and Compensation Cost	(T100/m2)	m2	80,000	0	0.1	0.1
	3)	Administration Expenses, 5 % of sub total a)				0	3.3	3.3
	4)	Engineerinf Services Cost w/VAT, 5 % of sub total a)	1	T		0	3.3	3.3
	5)	Contingency, 10 % of sub total a)	T			0	6.7	6.7
	-/	Total and of Decimal A	T			0	80.4	80.4

# Table O.4.14 (4) Financial Cost Estimate Sheet for Water Supply Sector, Phase III (2021-2030)

					US\$1.0=T144.0=	JY108.0	unit:million
Cost	T	Sector / District / Cost Items	Unit	Quantity		vestment Cost (US	
code				,	Foreign Currency	Local Currency	Total, equivalent
50-8	Sew	erage Treatment Plant Expansion (2)					
	1)	Direct construction cost	LS	1	0	21.0	21.0
	+-/-	VAT, 20 %			0	4.2	4.2
	<del>                                     </del>	sub total a)			0	25.2	25.2
	2)	Land Acquisition and Compensation Cost	m2	10,000	0	0.0	0.0
	3)	Administration Expenses, 5 % of sub total a)			0	1.3	1.3
	4)	Engineerinf Services Cost w/VAT, 10 % of sub total a)			0	2.5	2.5
	5)	Contingency, 10 % of sub total a)			0	2.5	2.5
	1	Total cost of Project A			0	31.5	31.5

						US\$1.0=T144.0=	JY 108.0	unit:million
Cost	T		Sector / District / Cost Items	Unit	Quantity	Investment Cost (US\$)		
code						Foreign Currency	Local Currency	Total, equivalent
50-9	Sew	erage T	reatment Plant Rehabilitation (full scale)					
	1)	Direct	construction cost	LS	1	0	10.0	10.0
	1		VAT, 20 %			0	2.0	2.0
	1		sub total a)			0	12.0	12.0
	2)	Land	Acquisition and Compensation Cost	m2	0	0	0.0	0.0
	3)	Admir	ustration Expenses, 5 % of sub total a)			0	0.6	0.6
	4)		perinf Services Cost w/VAT, 10 % of sub total a)		T	0	1.2	1.2
	5)		ngency, 10 % of sub total a)			0	1.2	1.2
	1-7		cost of Project A			0	15.0	15.0

						US\$1.0=T144.0=	JY 108.0	unit:million	
Cost	1	Τ	Sector / District / Cost Items	Unit	Quantity	In	Investment Cost (US\$)		
code	ļ					Foreign Currency	Local Currency	Total, equivalent	
50-10	Sew	erage C	ollectionSystem Expansion (3)						
	1)		construction cost	LS	1	0	21.8	21.8	
	1		VAT. 20 %			0	4.4	4.4	
	<b>†</b>	1	sub total a)			0	26.2	26.2	
	2)	Land	Acquisition and Compensation Cost	m2	36,100	0	0.0	0.0	
	3)	Admir	nistration Expenses, 5 % of sub total a)			0	1.3	1.3	
	4)		eerinf Services Cost w/VAT, 10 % of sub total a)			0	2.6	2.6	
ļ	5)		ngency, 10 % of sub total a)			0	2.6	2.6	
<u> </u>	1		cost of Project A			0	32.7	32.7	

Table O.4.14 (5) Financial Cost Estimate Sheet for Storm Water Drainage Sector, Phase III (2021-2030)

		•				US\$1.0=T144.0=	JY108.0	unit:million
Cost	t Sector / District / Cost Items			Unit	Quantity	Investment Cost (US\$)		
code						Foreign Currency	Local Currency	Total, equivalent
60-5	Pro	ect for the Stormwater Drainage Development		<u> </u>				<u>                                     </u>
	1)	Direct construction cost		LS	1	0	2.2	2.2
~	$\top$	VAT. 20 %				0	0.4	0.4
	1	sub total a)				0	2.6	2.6
	2)	Land Acquisition and Compensation Cost	(T200/m2)	m2	50,000	0	0.1	0,1
	3)	Administration Expenses, 5 % of sub total 2)		Ι		0	0.1	0.1
	4)	Engineerinf Services Cost w/VAT, 10 % of sub total a)				0	0.3	0.3
	5)	Contingency, 10 % of sub total a)				0	0.3	0.3
	1-	Total aget of Benient A				<u> </u>	3.4	3.4

Table O.4.14 (6) Financial Cost Estimate Sheet for Flood protection Sector, Phase III (2021-2030)

US\$1.0=T144.0=JY108.0 unit:million Investment Cost (US\$) Unit Quantity Sector / District / Cost Items Cost Foreign Currency Local Currency Total, equivalent code Ishim River improvement, L= km (2nd ring road to 3rd ring road) 70-6 16.1 LS 16.1 1) Direct construction cost 3.2 19.3 0 3.2 VAT, 20 % 0 19.3 sub total a) 0.0 0 0.0 Land Acquisition and Compensation Cost 2) 1.0 1.0 0 Administration Expenses, 5 % of sub total a) 3) 1.9 0 1.9 Engineerinf Services Cost w/VAT, 10 % of sub total a) 4) 0 1.9 1.9 Contingency, 10 % of sub total a)
Total cost of Project A 24.2 0 24.2

		•				US\$1.0=T144.0=	JY108.0	unit:million
Cost	т	Sector / District / Cost Items		Unit	Quantity		vestment Cost (US\$)	
code	1	Sector / District / Cost Notes				Foreign Currency	Local Currency	Total, equivalent
70-7	Construction of Flood Regulating Reservoir, 120 km2							
	15	Direct construction cost		LS	1_	0	8.1	8.1
	+	VAT. 20 %		1		0	1.6	1.6
	+-	<del></del>		1	1	0	9.7	9.7
	12		(T10/m2)	ha	12,000	0	8.3	8.3
	12	Administration Expenses, 5 % of sub total a)	<u> </u>			0	0.5	0.5
	13)	Engineerinf Services Cost w/VAT, 10 % of sub total a)	† · · · · · · · · · · · · · · · · · · ·	1		0	1.0	1.0
	17/	Contingency, 10 % of sub total a)	T			0	1.0	1.0
		Total cost of Project A				0	20.5	20.5

Table O.4.14 (7) Financial Cost Estimate Sheet for Power and Heat Energy Sector, Phase III (2021-2030)

		•				US\$1.0=T144.0=	JY108.0	unit:million
Cost	T	Sector / District / Cost Items		Unit	Quantity		vestment Cost (US	
code						Foreign Currency	Local Currency	Total, equivalent
80-11	Con	struction of 110 kV Transmission Line and Substation						
	1)	Direct construction cost	1	LS	1	0	6.4	6.4
	1-7	VAT. 20 %				0	1.3	1,3
	+	sub total a)				0	7.7	7.7
	2)	Land Acquisition and Compensation Cost	(T200/m2)	40,100		0	0.1	0.1
	3)	Administration Expenses, 5 % of sub total a)		[		0	0.4	0.4
···-	4)	Engineerinf Services Cost w/VAT, 5 % of sub total a)				0	0.4	0.4
<b></b>	5)	Contingency, 10 % of sub total a)				0	0.8	0.8
	1-7	Total cost of Project A		L		0	9.3	9.3

						US\$1.0=T144.0=.	JY 108.0	unit:million
Cost	Г	Sector / District / Cost Items		Unit	Quantity	Investment Cost (US\$)		
code						Foreign Currency	Local Currency	Total, equivalent
80-12	Nati	ral Gas Firing Combined Cycle Plant						
	in .	Direct construction cost	Ì	LS	1	0	140.5	140.5
	1-7-	VAT, 20 %				0	28.1	28.1
	+	sub total a)				0	168.6	168.6
	2)	Land Acquisition and Compensation Cost	(T200/m2)	10,000		0	0.0	0.0
	3)	Administration Expenses, 5 % of sub total a)				0	8.4	8.4
	4)	Engineerinf Services Cost w/VAT, 5 % of sub total a)				0	8.4	8.4
	155-	Contingency, 10 % of sub total a)				0	16.9	16.9
	1	Total cost of Project A		1		0	202.3	202.3

		and the second section is a second second				US\$1.0=T144.0=	JY 108.0	unit:million
Cost	Ţ-	Sector / District / Cost Items		Unit	Quantity		Investment Cost (US\$)	
code						Foreign Currency	Local Currency	Total, equivalent
80-13	Cons	truction of One (1) Heat Center, Extension of Four (4)	Heat Center			_	'	Ĺ
	and )	Related Pipelines on the Left Bank of Ishim River					<u></u>	<del></del>
		Direct construction cost		LS	11	0	49.3	49.3
	† <del>*/</del>	VAT, 20 %				0	9.9	9.9
	$\vdash$	sub total a)		1		0	59.2	59.2
h	2)	Land Acquisition and Compensation Cost	(T200/m2)	m2	10,000	0	0.0	0.0
<del></del>	3)	Administration Expenses, 5 % of sub total a)				0	3.0	3.0
<b></b>	4)	Engineerinf Services Cost w/VAT, 5 % of sub total a)				0	3.0	3.0
<b> </b>	5	Contingency, 10 % of sub total a)				0	5.9	5.9
<u> </u>	1-1	Total cost of Project A				0	71.0	71.0

Table O.4.14 (8) Financial Cost Estimate Sheet for Power and Heat Energy Sector, Phase III (2021-2030)

						US\$1.0=T144.0=.	JY108.0	unit:million
Cost	1	Sector / District / Cost Items		Unit	Quantity	la	vestment Cost (US	<b>S</b> )
code				1		Foreign Currency	Local Currency	Total, equivalent
90-2	Gas	Supply Network Expansion Project (2)						
	in	Direct construction cost		LS	1	0.0	8.5	8.5
	1-7-	VAT, 20 %				0.0	0.0	0.0
	1	sub total a)				0.0	8.5	8.5
	2)	Land Acquisition and Compensation Cost	(T200/m2)	m2	210,000	0.0	0.3	0.3
	3)	Administration Expenses, 5 % of sub total a)				0.0	0.4	0.4
	4)	Engineerinf Services Cost w/VAT, 10 % of sub total a)	1			0.0	0.9	0.9
	5)	Contingency, 10 % of sub total a)		1		0.0	0.9	0.9
	+-/-	Total cost OF Project		Ī		0.0	10.9	10.9

Table O.4.14 (9) Financial Cost Estimate Sheet for Telecommunication Sector, Phase III (2021-2030)

						US\$1.0=T144.0=.	JY108.0	unit:million	
Cost	[	T	Sector / District / Cost Items	Unit	Quantity	Investment Cost (US\$)		\$)	
code						Foreign Currency	Local Currency	Total, equivalent	
100-2	Asti	ana New	Local Telecommunication Network (3)						
	1)	Direct	construction cost	LS	1	0.0	38.1	38.1	
	1	1	VAT. 20 %			0.0	0.0	0.0	
		1	sub total a)			0.0	38.1	38.1	
	2)	Land A	Acquisition and Compensation Cost	LS	1	0.0	0.0	0.0	
	3)	Admir	istration Expenses, 5 % of sub total a)	LS	1	0.0	1.9	1.9	
	4)		perinf Services Cost w/VAT, 10 % of sub total a)	LS	1	0.0	3.8	3.8	
	5)		igency, 10 % of sub total a)	LS	1	0,0	3.8	3.8	
	1-7		cost of Project			0.0	47.6	47.6	

Table O.4.14 (10) Financial Cost Estimate Sheet for Solid Waste Sector, Phase III (2021-2030)

						US\$1.0=T144.0=	JY108.0	unit:million
Cost		Sector / District / Cost Items		Unit	Quantity	In .	vestment Cost (US	S\$)
code	<u> </u>					Foreign Currency	Local Currency	Total, equivalent
110-1	Lan	dfill-2 Project (phase 2)						·
	1)	Direct construction cost		LS	1	0	15,5	15.5
		VAT, 20 %				0	3.1	3.1
		sub total a)				0	18.6	18.6
	2)	Land Acquisition and Compensation Cost	(T200/m2)	ha	46	0	0.6	0.6
	3)	Administration Expenses, 5 % of sub total a)	·			0	0.9	0.9
	4)	Engineerinf Services Cost w/VAT, 10 % of sub total a)				0	1.9	1.9
	5)	Contingency, 10 % of sub total a)				0	1.9	1.9
		Total cost of Project				0	23.9	23.9

						US\$1.0=T144.0=	JY108.0	unit:million
Cost	Γ		Sector / District / Cost Items	Unit	Quantity	In	vestment Cost (US	S\$)
code		l				Foreign Currency	Local Currency	Total, equivalent
110-6	MSV	V Trans	fer station					
	1)	Direct	construction cost	LS	1	0	2.5	2.5
	Ī		VAT, 20 %			0	0,5	0.5
			sub total a)			0	3.0	3.0
	2)	Land A	Acquisition and Compensation Cost	ha	0	0	0.0	0.0
	3)	Admin	istration Expenses, 5 % of sub total a)			0	0.2	0.2
	4)_	Engine	perinf Services Cost w/VAT, 5 % of sub total a)			0	0.2	0.2
	5)	Contin	gency, 10 % of sub total a)			0	0.3	0.3
	T	Total o	cost of Project		1	0	3.6	3.6

Table O.4.15 Cost Estimate Sheet for Urban Development, Central Planning Region, Phase I, II and III

	ļ	Total Arca	L			Developmen	Cost of F		Area by Ph	250	2020		Total
Cost Code	District / Zoning	to 2030	Total		2010			2020			2030		2010 to
	Ì		requires	area	unit cost	amount	area	unit cost	amount	2030	unit cost	amount	2030
		ha	1,000m2		US\$/m2	US\$1,000	1,000m2	US\$/m2	US\$1,000		US\$/m2	US\$1,000	
0-1 Central	Planning Region	1,689	1,185	407		122,067	574		172,229	204		61,193	355,48
10-1-1	Residential District	385	350	. 0		0	146		43,850	204		61,193	105,043
	1) low density		0	0	200	0	0	200	0	0	200	0	
	2) medium density		350	0	300	0	146	300	43,850	204	300	61,193	105,04
1	3) high density		0	0	500	0	0	500	0	0	500	0	. 1
10-1-2	Residential District	1A 563	336	183		55,048	153		45,811	0		0	100,85
	1) low density		0	0	200	0	0	200	0	0	200	0	
	2) medium density		336	183	300	55,048	153	300	45,811	0	300	0	100,85
	3) high density		0	0	500	0	0	500	0	0	500	0	
10-1-3	Residential District	5 357	278	124		37,255	154		46,134	0		0	83,38
	1) low density		0	0	200	0	0	200	0	0	200	0	
	2) medium density		278	124	300	37,255	154	300	46,134	0	300	0	83,38
	3) high density		0	0	500	0	0	500	0	0	500	0	
10-1-4	Residential District	6 384	221	99	1.7	29,765	121		36,425	0		0	66,19
	1) low density		0	0	200	0	0	200	0	0	200	0	
	2) medium density		221	99	300	29,765	121	300	36,425	0	300	0	66,19
	3) high density		0	0	500	0	0	500	0	0	500	0	
	· · · · · · · · · · · · · · · · · · ·	1.1										<u> </u>	Ļ
note 1)	97 .	A 1 A		4000			note 2)					<u> </u>	
low dens		erson/ha, detac					<del></del>	n in gross	(calculatio	n basis of re			
medium		person/ha, apa				L	18	2010	<u> </u>	zero count			ise
high der	sity 250-350	person/ha, higi	n-rise buildi	ng 6 storic	s or more	w/elevator	22	2020	<u> </u>	costed by d	emolition	work	
							25	2030	<b></b>	<u> </u>		ļ	
	1							1	L	·	1	<u> </u>	<u> </u>

		I	otal Area	25.5	Developn	nent Cost (	of Office Flo	or Area b	y Phase			49 No. 1	5.5	Total
Cost Code	District / Zoning	1	to 2030	total		2010			2020			2030	\$ 16	2010 to
				requires	area	unit cost	amount	arca	unit cost	amount	area	unit cost	amount	2030
计二数字算序			ha	1,000m2	1,000m2	US\$/m2	US\$1,000	1,000m2	US\$/m2	US\$1,000	1,000m2	US\$/m2	US\$1,000	US\$1,000
10-1 Central	Planning Region		1,689	532	33	1.00	9,767	384	100	115,330	116	47.57	34,651	159,749
	Residential District	3	385	222	. 0	300	. 0	164	300	49,219	58	300	17,278	
	Residential District	4A	563	278	33	300	9,767	191	300	57,323	55	300	16,417	
10-1-3	Residential District	5	357	17	0	300	0	16	300	4,667	2	300	453	
10-1-4	Residential District	6	384	15	0	300	0	14	300	4,122	2	300	503	
											1.1			
	† · · · · · · · · · · · · · · · · · · ·	$\rightarrow$		· ·			-				zero count	for floor a	rea decreas	16
						<u>├</u>			1. 1. 1.		costed by o	lemolition	work	
<del></del>	<del>                                     </del>	$\rightarrow$				<del>                                     </del>	<u> </u>	T		1		T :	ľ	

				Total Area	1,75 (7.3)	Developn	nent Cost	of Commerc	ial Area by	Phase		11 11		10000	Total
Ċ	Cost Code	District / Zoning	11.	to 2030	total		2010	1 1 1 1 1	17.11	2020	A 4 5		2030	250.00	2010 to
				1 1	requires	arca	unit cost	amount	arca.	unit cost	amount	area	unit cost	amount	2030
	2. 10 and 10 and 10	Children Control		ha	1,000m2	1,000m2	US\$/m2	US\$1,000	1,000m2	US\$/m2	US\$1,000	1,000m2	US\$/m2	US\$1,000	US\$1,000
10-1	Central I	Planning Region		1,689	79	10	71.6	2,061	11	1.17	2,266	57		11,495	15,821
	10-1-1	Residential District	3	385	18	0	200	93	3	200	665	14	200	2,812	
		Residential District		563	- 34	6	200	1,182	3	200	539	25	200	5,063	
		Residential District	5	357	14	2	200	407	3	200	548	9	200	1,756	
	10-1-4	Residential District	6	384	14	2	200	379	3	200	513	9	200	1,864	
		7 N				11						1 1 1	45.5	1 1	<u> </u>
	7. ,			<u> </u>			1					zero count	for floor a	irea decrea	
	1				`	1	<u> </u>					costed by d	emolition	work	
	+	2				<u> </u>	1				i -				

#### 10-1 Cost Summary of Residential, Office and Commercial Floor Area & OM Cost for Central Planning Region

:	The second second	Total Area		Developm	ent Cost f	for Residentia	d Office	& Commerc	ial Arca b	y Phase		intenance C	
Cost Code	District / Zoning	to 2030		1, 1		4 - 4 - 5 - 5 - 5		1			1 % of	developme	ant cost
				2010		2020		2030		total	2010	2020	2030
10.0		ha i		US\$1,000	1	US\$1,000		US\$1,000		US\$1,000	US\$1,00	US\$1,000	US\$1,00
1-1 Central	Planning Region	1,689		133,895		289,816		107,338		531,049	1,339	4,237	5,3
	Residential District 3	385		93		93,735		81,282		175,110	1	938	1,7:
	Residential area			0		43,850	+ -	61,193	1 1	105,043			L
	Office floor area	1	1.	0		49,219		17,278	_ · · ·	66,497			
	Commercial area	100	7.0	93		665		2,812		3,570			<u> </u>
	Residential District 4A	563	5.44	65,997		103,673	1.1.1	21,479		191,149	660	1,697	1,9
	Residential area			55,048		45,811		0		100,858	1.	: .	
	Office floor area			9,767	. 3	57,323		16,417		83,507			
	Commercial area			1,182	,	539	133	5,063	7.	6,784	3 8		<u> </u>
10-1-3	Residential District 5	357		37,662	14.3	51,349	- 1	2,209		91,219	377	890	
	Residential area			37,255		46,134		0		83,389			<u> </u>
44 199	Office floor area	1 1 1 1 1 1	100	0	+ 1,	4,667	1 17	453	1.5	5,120			<u> </u>
1	Commercial area		-	407		548	- 13	1,756		2,711	1000		
10-1-4	Residential District 6	384		30,143	1. 7	41,061		2,367		73,571	301	712	
	Residential area	14.		29,765	1.00	36,425		0		66,190	<u> </u>	<u> </u>	<u> L </u>
A	Office floor area	1.7		0		4,122	74 N	503	7.	4,625			<u> </u>
<del></del>	Commercial area	1		379	0.00	513		1,864	*:	2,756		1	

Table O.4.16 Cost Estimate Sheet for Urban Development, Northern Planning region, Phase I, II and III (1/2)

		Total Area			Dey	elopment	Cost of R	esidential	Area by	hase			Total
Cost Code	District / Zoning	to 2030	total		2010			2020			2030		2010 to
		1 1	requires	area	unit cost	amount	area	unit cost		area	unit cost	amount	2030
		ha	1,000m2	1,000m2	US\$/m2	US\$1,000	1,000m2	US\$/m2	US\$1,000	1,000m2	US\$/m2		US\$1,000
	n Planning Region	22,614				0			0			0	0
10-2-1	North industrial district	2,146	0	0		0	0	<u></u>	0	0		0	0
	1) low density		0	0	200	0	0	200	0	0	200	0	0
	2) medium density	1	0	0	300	0	0	300	0	0	300	0	0
	3) high density	l	0	0	500	0	0	500	Q	0	500	0	0
10-2-2	Central industrial distric	3,353	0	0	٠.	Ô	0	4.5	0	0		0	0
	1) low density		0	0	200	0	0	200	0	0	200	0	0
	2) medium density	I	0	0	300	0	0	300	0	0	300	0	0
	3) high density		0	0	500	0	0	500	0	0	500	0	0
10-2-3	Planning district I	6,302			. :				4				
	1) low density		0	0	200	. 0	0	200	0	0	200	0	0
	2) medium density		0	0	300	. 0	0	300	0	0	300	0	0
	3) high density		0	0	500	0	0	500	0	0	500	0	0
10-2-4	Planning district II	3,710								1 1			
	1) low density		0	0	200	0	0	200	0	0	200	. 0	0
	2) medium density	1	0	0	300	0	0	300	0	0	300	0	0
	3) high density		0	0	500	0	0	500	0	G	500	0	0
10-2-5	Planning district III	2,927	<u> </u>										
	1) low density	1	O	0	200	0	0	200	0	0	200	0	0
	2) medium density	1	O	0	300	0	0	300	0	0	300	0	0
	3) high density	1 1 1 1	0	0	500	0	0	500	0	0	500	0	0
10-2-6	Planning district IV	4,176			1			1. 1.	· ·	4 4 4 4			4.7
	1) low density	1	<del>                                      </del>	. 0	200	0	0	200	6	0	200	0	0
	2) medium density		0	0	300	0	0	300	0	0	300	0	0
	3) high density	1	1 o	<del></del>		Ò	0	500	0	0	500	0	C
10-2-7	Planning district IV, ser	vice	<del>  </del>						1				1
	1) low density	1	1 0	0	200	0	0	200	0	0	200	0	
	2) medium density	0.5	0	ő	300	0	1 0	300	0	0	300	0	. (
	3) high density	1	0	Ö	500	1 0	1 0	500	0	0	500	0	C
10-2-B	Planning district IV, car	ro center	-	All, a	22			1130 143			1		
	1) low density	1	ll o	0	200	0	0	200	0	Ö	200	0	
17.7	2) medium density	<del>-  </del>	11 ō			<del></del>	Ť		Ŏ	0	300	0	(
1.7	3) high density	10000	1 0	0	500	0	0	500	0	0	500	0	
10-2-9	Settlement Zheleznodo	ezhny	11				1				15.5		1
	1) low density		11	1		1	1						
	2) medium density	1											
1.5	3) high density		1							L			
				I	I								
note l)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			0			note 2)			100	7		
low dens		n/ha, detached					m2/perso	n in gross	(calculation	on basis of	residential	floor)	1 1 1 1 1 1
medium	density 100-250 per	son/ha, apartm	ent till 5 stor	ries wo/ele	vetor		18	2010				ation decreas	ie
high den	sity 250-350 per	son/ha, high-ri	se building (	stories or	more w/ele	rvator	22	2020		costed by	demolition	work	
			11	2.5		1	25	2030	)	T	1		

		Total Area	100	Developn	nerit Cost	of Office	Floor Ar	ea by Pha	se		e view in	1111	Total
Cost Code	District / Zoning	to 2030	total		2010			2020			2030		2010 to
:			requires	агеа	unit cost	amount	arca	unit cost	amount	area	unit cost	amount	2030
3 <u>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</u>	* * \$ * *	l ha l	1,000m2	1,000m2	US\$/m2	S\$1,00	1,000m2	US\$/m2	S\$1,00	1,000m2	US\$/m2	US\$1,000	US\$1,000
10-2 Northern	Planning Region	22,614	207	21	5.44	6,164	110		33,059	76	F. 55.	22,920	
10-2-1	North industrial district	2,146	78	0	300	0	48	300	14,534	30	300	9,009	
10-2-2	Central industrial distric	3,353	96	. 0	300	0	55	300	16,566	41	300	12,188	
10-2-3	Planning district I	6,302	4	4	300	1,068	0	300	9	0	300	0	1
10-2-4	Planning district II	3,710	0	0	300	0	0	300	0	0	300	0	
10-2-5	Planning district III	2,927	0	0	300	0	0	300	0	0	300	. 0	
10-2-6	Planning district IV	4,176	0	0	300	0	0	300	0	0	300	- 0	
10-2-7	Planning district IV ser.	1 - 1	2	2	- 300	540	. 0	300	0	0	300	0	
10-2-8	Planning district IV carg	o.	27	15	300	4,556	7	300	1,959	6	300	1,724	
10-2-9	Settlement Zheleznodoe	zhny	,	1 N 1948									
									1	1	70. 1		
										zero coun	t for floor a	rea decrease	
1					1		1.1		1.2	costed by	demolition	work	
	<u> </u>	†		1	1	<u> </u>			T	1 1			

[		Total Area		Developr	nent Cost	of Comm	ercial An	ea by Phas	5e		1.1.5 \$ 56.5		Total
Cost Code	District / Zoning	to 2030	total	113	2010	11		2020	1.14		2030	rie des	2010 to
			requires	area	unit cost	amount	area	unit cost	amount	area	unit cost	amount.	2030
		ha	1,000m2	1,000m2	US\$/m2	S\$1,00	1,000m2	U\$\$/m2	S\$1,00	1,000m2	US\$/m2	US\$1,000	US\$1,000
10-2 Northern	Planning Region	22,614	3	- 1	14., 77	152	0	10.00	36	2	475 (57)	361	549
10-2-1	North industrial district	2,146	1	0	200	0	0	200	23	1	200	225	\$1.00
10-2-2	Central industrial distric	3,353	2	1	200	152	0	200	14	1	200	136	100
10-2-3	Planning district I	6,302	0	0	200	0	- 0	200	. 0	0	200	0	5 4 2
10-2-4	Planning district II	3,710	0	0	200	0	0	200	0	0	200	0	11 11 1
10-2-5	Planning district III	2,927	0	0	200	. 0	0	- 200	0	0	200	0	
10-2-6	Planning district IV	4,176	0	0	200	0	0	200	0	0	200	0	1
10-2-7	Planning district IV ser.		0	0	200	0	0	200	. 0	0	200	0	
10-2-8	Planning district IV carg	0.	0	· 0	200	. 0	0	200	0	0	200	0	
10-2-9	Settlement Zheleznodoe	zhny		-							property of	g. (4) (2)	100
										zero coun	t for floor a	res decresse	3.
	4	1			T	1	<u> </u>			costed by	demolition	work .	
	1	1		l	1	1	t	1		†	T		<del>                                     </del>

Table O.4.16 Cost Estimate Sheet for Urban Development, Northern Planning region, Phase I, II and III (2/2)

Cost Code	District / Zoning						ommercia				ntenance C	
		to 2030								1 % of	developmer	nt cost
			2010		2020	I	2030		total	2010	2020	2030
	,	ha	S\$1,000	) (	JS\$1,00		S\$1,000		JS\$1,00	US\$1,000	US\$1,000	US\$1,00
2 Northerr	Planning Region	22,614	6,316		33,095		23,282	$\neg \neg$	62,693	63	394	62
	North Industrial District	2,146	0		14,557		9,234		23,790	0	146	Ž.
	Residential area	1	0		0		0		0			
	Office floor area	1	0		14,534		9,009		23,543			
	Commercial area		0		23		225		247			
10-2-2	Central industrial distric	3,353	152		16,579		12,324		29,055	2	167	2
-1	Residential area		0		0		0		0			
	Office floor area	1			16,566		12,188		28,753			
	Commercial area		152		14		136		302			
	Planning District I	6,302	1,068		0		0		1,068	11	11	
	Residential area	1	0		0				0			
	Office floor area		1,068		0		0		1,068			
	Commercial area		0		0		0		0			
10-2-4	Planning District II	3,710	0		0		0		0	0	0	
	Residential area		0		0				Q			
	Office floor area		0	1.0	0		Q		Ç			
_	Commercial area	1	0		0		0		0			
10-2-5	Planning district III	2,927	0		0		0		0	0	0	
	Residential area		0	[	0				0			
	Office floor area		Ó		0		0		0			Ĺ
	Commercial area		0		0		0		0			
10-2-6	Planning district IV	4,176	0		0		0		0	0	0	
	Residential area	T	0		0				0		L	<u> </u>
	Office floor area		0		0	4.3	0		0	5. 1		l
	Commercial area		- 0		0		0		0			
10-2-7	Planning district IV ser.	S 44	540		0	i	0		540	5	5	
	Residential area		0		0		. 71		. 0		<u> </u>	
	Office floor area		540	<u> </u>	0		0		540		<del>                                     </del>	<u> </u>
	Commercial area	1	0		0	L	0		0	+	<u> </u>	<u> </u>
10-2-8	Planning district IV care	ю.	4,556		1,959		1,724		8,240	46	65	<u> </u>
	Residential area	1	0		. 0	ļ			0		1	<b>—</b>
	Office floor area		4,556	ļ	1,959	<u> </u>	1,724		8,240	<u> </u>	2.5.5	<u> </u>
/	Commercial area		0		0		0		0			<u> </u>
10-2-9	Settlement Zheleznador	zhny									<u> </u>	

Table O.4.17 Cost Estimate Sheet for Urban Development, Southeastern Planning Region, Phase I, II and III (1/2)

· · · · · · · · · · · · · · · · · · ·		Total Area		evelopmen		Residentia	Area by						Total
Cost Cod	District / Zoning	to 2030	total		2010			2020		<del></del> -	2030		2010 to 2030
		3	requires		unit cost				amount		unit cost		US\$1,000
					US\$/m2 (		1,000 <u>m2</u>		S\$1,00	1,000m2   0	US\$/m2		1,340,244
	stern Planning Region	11,270	3,974	2,385		922,585	1,588		417,659	0		<u> </u>	328,374
10-3-1	Residential District 7	562	683	617		308,574	66		19,800			ő	320,314
	1) low density	<u> </u>	0	0	200	0	0	200	0	0	300	0	19,800
	2) medium density	<b>1</b>	66	0	300	0	66	300	19,800	0		- 61	308,574
	3) high density	11	617	617	500	308,574	0	500		0	500		
10-3-2	Residential District 8	395	11	11]		3,300	0		0	0		0	3,300
	1) low density	1	0	0	200	0	0	200	0	0	200	0	. 0
	2) medium density		11	11	300	3,300	0	300	0	0	300	0	3,300
<del> </del>	3) high density	<del>                                      </del>	0	0	500	0	0	500	0	0	500	0	. 0
10-3-3	Residential District 9	552	477	477		124,623	0		0	. 0		0	124,623
1000	1) low density	11	183	183	200	36,673	0 [	200	0	0	200	0	36,673
			293	293	300	87,950	ō	300	ō	0	300	0	87,950
	2) medium density	<del></del>	253	293	500	07,550	0	500	ŏ	Ö	500	0	
	3) high density	1		80	300	16,096	114	- ***	22,880	0		0	38,976
10-3-4	Residential District 10	213	195						22,880	0	200	0	38,976
	1) low density	<u> </u>	195	80	200	16,096	114	200		0	300	Ö	30,371
	2) medium density	1	0	0	300	0	0	300	- 0	0	500	ő	
	3) high density		0	0	500	0	0	500	0				
10-3-5	Ind. District sta. 40	752	302	136	22.3	40,770	166		33,220	0		0	73,990
	1) low density		166	. 0	200	0	166	200	33,220	0	200	0	33,220
	2) medium density		136	136	300	40,770	0	300	0	0	300	. 0	40,770
	3) high density		0	O	500	- 0 D	0	500	0	0	500	0	
10-3-6	Residential District 17	715	1,287	1.064	2. 2. 2.	429,223	223	1.464	89,648	0	1.44 597	0	518,870
10 3 0	1) low density		47	47	200	9,432	. 0	200	0	0	200	0	9,43
		<u> </u>	554	444	300	133,213	110	300	32,855	0		0	166,06
	2) medium density		687	573	500	286,578	114	500	56,793	ō	500	. 0	343,37
40.07	3) high density	000	625	0	300	200,370	625	1 000	147,134	0		0	147,13
10-3-7	Residential District 18	902	1	<u>_</u>			402	200	80,494	. 0	200	0	80,49
	1) low density		402	0	200	0				- 0		ŏ	66,64
	2) medium density		222	0	300	: 0	222	300	66,640			ŏ	70,00
	3) high density		. 0	0	500	. 0	. 0	500	0	0			
10-3-8	Residential District 19	783	394	0		0	394		104,977	. 0		0	104,97
	1) low density		133	0	200	0	133	200	26,563	0		0	26,56
	2) medium density		261	. 0	300	. 0	261	300	78,415	0		0	78,41
	3) high density		0	. 0	500	. 0	0	500	0	0		0	1
10-3-9	Planning district V	6,396	O	0		Ö	- 0	1114	0	. 0	) "	0	
1.7 -	1) low density		0	0	200	- 0	. 0	200	0	0	200	0	
	2) medium density		Ŏ	0	300	Ö	0	300	Ö	0	300	0	
	3) high density		Ŏ	0		0	0	500	0	0	500	0	
10-3-1		nenv	<del> </del>				<u> </u>	1					
10-3-1			1		1	<b>†</b>	<u></u>						
	Settlement Michurino	T .	1			· · · · · ·		1					
	Settlement Kuygenzha	_	<del>                                     </del>		†~	<del>                                     </del>			†		1		
	Secuenteric Ruygerizise	<del>"  </del>	₩	0	<del>                                     </del>		note 2)						
note 1)	10 100		II		<del>                                       </del>	<del> </del>	<u> </u>	n in gross	(calculatio	on basis of n	esidential fi	oor)	<b></b>
low dens		on/ha detached			<u></u>	<del> </del>	18	7	Concurant		for populati		
medium		son√ha, apartm				<u></u>			<del> </del>		lemolition v		1
high den	sity 250-350 per	son/ha, high-ri	sc building	stories or n	nore w/cleva	tor	22			costed by c	semonuon v	T	<del> </del>
			11		<u> </u>	<u> </u>	25						+
		Total Are		Developm	ent Cost o	f Office F	oor Area		<u> </u>		0000	,	Total
Cost Co	d District / Zoning	to 2030	total		2010		ļ	2020		<b></b>	2030		2010 to
			requires		unit cos	t amount			amount		unit cos	amount	2030
		ha	1,000m	1,000m2		US\$1,00					US\$/m		
	eastern Planning Regio	n 11.270	396	227		68,089			47,360			3,383	
10  South	COSCCIII I IGIIINISE I COSTO				300	12,222	17				3 300		
	1 Residential District 7	562	61	41							1 300	312	1
10-3-	1 Residential District 7			41		0			<del></del>				
10-3- 10-3-	1 Residential District 7 2 Residential District 8	562	6		300				1,529		1 300	295	
10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 9	562 395 552	6 54	C	300	14,495	5	300	1,529		1 300 0 300	295 111	
10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 9 4 Residential District 10	562 395 552 3 213	54 21	46 10	300 300 300	14,495 2,882	5 11	300	1,529 3,203		1 300	295 111	
10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 9 4 Residential District 10 5 Ind. District sta. 40	562 395 552 3 213 752	54 21 30	48 10 25	300 300 300 300 300	14,495 2,882 7,391	5 11 4	300 300 300	1,529 3,203 1,109		1 300 0 300	295 111 611	
10-3- 10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 9 4 Residential District 10 5 Ind. District sta. 40 6 Residential District 1	562 395 552 3 213 752 7 715	6 54 21 30 129	48 10 25 98	300 300 300 300 300 300	14,495 2,882 7,391 29,378	5 11 4 29	300 300 300 300 300	1,529 3,203 1,109 8,752		1 300 0 300 2 300	295 111 611 701	
10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 9 4 Residential District 10 5 Ind. District sta. 40 6 Residential District 1 7 Residential District 1	562 395 552 3 213 752 7 715 8 902	54 21 30 129 54	98 0	300 300 300 300 300 3 300 3 300	14,495 2,882 7,391 29,378	5 11 4 29 53	300 300 300 300 300 300	1,529 3,203 1,109 8,752 15,825		1 300 0 300 2 300 2 300 1 300	295 111 611 701 287	
10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 9 4 Residential District 10 5 Ind. District sta. 40 6 Residential District 1 7 Residential District 1 8 Residential District 1	562 395 552 3 213 752 7 718 8 902 9 783	54 21 30 129 54 34	98 0	300 300 300 300 300 3 300 3 300 3 300	14,495 2,882 7,391 29,378 0 0	5 11 4 29 53	300 300 300 300 33 300 33	1,529 3,203 1,109 8,752 15,825 9,988		1 300 0 300 2 300 2 300 1 300	295 111 611 701 287 181	
10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 9 4 Residential District 10 5 Ind. District sta. 40 6 Residential District 1 7 Residential District 1 8 Residential District 1 9 Planning district V	562 395 552 3 213 752 7 718 8 902 9 763 6,396	54 21 30 129 54 34	98 0	300 300 300 300 300 3 300 3 300	14,495 2,882 7,391 29,378 0 0	5 11 4 29 53	300 300 300 300 33 300 3	1,529 3,203 1,109 8,752 15,825 9,988		1 300 0 300 2 300 2 300 1 300 1 300	295 111 611 701 287 181	
10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 8 4 Residential District 10 5 Ind. District sta. 40 6 Residential District 1 7 Residential District 1 8 Residential District 1 9 Planning district V 1 Settlement Promyshl	562 395 552 3 213 752 7 715 8 902 9 783 6,396	54 21 30 129 54 34	98 0	300 300 300 300 300 3 300 3 300 3 300	14,495 2,882 7,391 29,378 0 0	5 11 4 29 53	300 300 300 300 33 300 33	1,529 3,203 1,109 8,752 15,825 9,988		1 300 0 300 2 300 2 300 1 300 1 300	295 111 611 701 287 181	
10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 8 4 Residential District 10 5 Ind. District sta. 40 6 Residential District 1 7 Residential District 1 8 Residential District 1 9 Planning district 1 1 Settlement Promyshl 1 Settlement Internation	562 395 552 3 213 752 7 718 8 902 9 78 6,396 entry	54 21 30 129 54 34	98 0	300 300 300 300 300 3 300 3 300 3 300	14,495 2,882 7,391 29,378 0 0	5 11 4 29 53	300 300 300 300 33 300 33	1,529 3,203 1,109 8,752 15,825 9,988		1 300 0 300 2 300 2 300 1 300 1 300	295 111 611 701 287 181	
10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 9 4 Residential District 10 5 Ind. District sta. 40 6 Residential District 1 7 Residential District 1 8 Residential District 1 9 Planning district V 1 Settlement Internation 1 Settlement Micharing 1 Settlement Micharing	562 395 552 3 213 752 7 718 8 902 9 783 6,396 enrry	54 21 30 129 54 34	98 0	300 300 300 300 300 3 300 3 300 3 300	14,495 2,882 7,391 29,378 0 0	5 11 4 29 53	300 300 300 300 33 300 33	1,529 3,203 1,109 8,752 15,825 9,988		1 300 0 300 2 300 2 300 1 300 1 300	295 111 611 701 287 181	
10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 8 4 Residential District 10 5 Ind. District sta. 40 6 Residential District 1 7 Residential District 1 8 Residential District 1 9 Planning district 1 1 Settlement Promyshl 1 Settlement Internation	562 395 552 3 213 752 7 718 8 902 9 783 6,396 enrry	54 21 30 129 54 34	98 0	300 300 300 300 300 3 300 3 300 3 300	14,495 2,882 7,391 29,378 0 0	5 11 4 29 53	300 300 300 300 33 300 33	1,529 3,203 1,109 8,752 15,825 9,988		1 300 0 300 2 300 2 300 1 300 1 300	295 111 611 701 287 181	
10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 9 4 Residential District 10 5 Ind. District sta. 40 6 Residential District 1 7 Residential District 1 8 Residential District 1 9 Planning district V 1 Settlement Internation 1 Settlement Micharing 1 Settlement Micharing	562 395 552 3 213 752 7 718 8 902 9 783 6,396 enrry	54 21 30 129 54 34	98 0	300 300 300 300 300 3 300 3 300 3 300	14,495 2,882 7,391 29,378 0 0	5 11 4 29 53	300 300 300 300 33 300 33	1,529 3,203 1,109 8,752 15,825 9,988		1 300 0 300 2 300 2 300 1 300 1 300 0 300	295 1111 0 611 701 0 287 0 181 0 0	
10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 9 4 Residential District 10 5 Ind. District sta. 40 6 Residential District 1 7 Residential District 1 8 Residential District 1 9 Planning district V 1 Settlement Internation 1 Settlement Micharing 1 Settlement Micharing	562 395 552 3 213 752 7 718 8 902 9 783 6,396 enrry	54 21 30 129 54 34	98 0	300 300 300 300 300 3 300 3 300 3 300	14,495 2,882 7,391 29,378 0 0	5 11 4 29 53	300 300 300 300 33 300 33	1,529 3,203 1,109 8,752 15,825 9,988	zero coun	1 300 0 300 2 300 2 300 1 300 1 300 0 300	295 1111 0 611 0 701 0 287 10 0	
10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3- 10-3-	1 Residential District 7 2 Residential District 8 3 Residential District 9 4 Residential District 10 5 Ind. District sta. 40 6 Residential District 1 7 Residential District 1 8 Residential District 1 9 Planning district V 1 Settlement Internation 1 Settlement Micharing 1 Settlement Micharing	562 395 552 3 213 752 7 718 8 902 9 783 6,396 enrry	54 21 30 129 54 34	98 0	300 300 300 300 300 3 300 3 300 3 300	14,495 2,882 7,391 29,378 0 0	5 11 4 29 53	300 300 300 300 33 300 33	1,529 3,203 1,109 8,752 15,825 9,988	zero coun	1 300 0 300 2 300 2 300 1 300 1 300 0 300	295 1111 0 611 0 701 0 287 10 0	

Table O.4.17 Cost Estimate Sheet for Urban Development, Southeastern Planning Region, Phase I, II and III (2/2)

		Total Area	1	Developme	nt Cost of	Commerc	ial Area	by Phase					Total
Cost Cod	District / Zoning	to 2030	total		2010			2020_			2030		2010 to
0000			requires	8/62	unit cost	amount	area	unit cos	amount	area	unit cost	amount	2030
	9	ha l	1,000m	1,000m2	US\$/m2	US\$1,00	1,000m2	US\$/m2	S\$1,00		US\$/m2		US\$1,000
10 Southea	stern Planning Region	11,270	138	49		9,806	30		6,052	58		11,687	27,544
10-3-1	Residential District 7	562	29	10	200	2,068	3	200	555	16	200	3,276	5,899
	Residential District 8	395	9	1_	200	185	1	200	233		200	1,342	1,760
	Residential District 9	552	21	12	200	2,378	0	200	45	8	200	1,679	4,103
10-3-4	Residential District 10	213	3	1	200	116	1	200	220	1	200	220	555
	ind. District sta. 40	752	3	2	200	362	0	200	20	1	200	201	584
	Residential District 17	715	43	22	200	4,416	6	200	1,258	15	200	2,960	8,634
10-3-7	Residential District 18	902	17	0	200	0	11	200	2,271	6	200	1,136	3,407
10-3-8	Residential District 19	783	11	0	200	0	7	200	1,433	4	200	717	2,150
10-3-9	Planning district V	6,396	2	1	200	280	0	200	16	1	200	156	452
10-3-1	Sattlement Promyshlenr	אר				I		1	l				<b></b>
10-3-1	Settlement International	Inoe				<u> </u>		L		<b></b>			<b></b>
10-3-1	Settlement Michurino	1		<u></u>	L		ļ	1			l	Ļ	<del>                                     </del>
10-3-1	Settlement Kuygenzhar				<u> </u>	ļ	<u> </u>		<u> </u>	<b> </b>		<u> </u>	ļ
T T		l	lL			<u> </u>	<u> </u>	<b></b>	Ļ	zero count i			<b></b>
						<u> </u>	<u> </u>	<u> </u>	L	costed by d	emolition w	ork	ļ
		1						1		<u> </u>	<u> </u>	<u>.                                    </u>	<u> </u>

Cost Cod	,	Total Area									
Cost Coa	District / Zoning	to 2030				<u>, o,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>		mercial Area by Ph	1 % of c	onstruction	on cost
	District / Zoning	W 2030	2010		2020		2030	total	2010	2020	2030
Y. 1 8 3	13 to 16 by a control of the	ha	US\$1,000		US\$1.00		S\$1.000	US\$1,000		US\$1,000	US\$1.00
		11,270	1.000,480		471.070		15.069	1,486,619			14,86
	tern Planning Region	562	322,864		25,541		4.160	352,565	3.229	3,484	3,52
	Residential District 7	302	308,574		19.800		7,100	328,374	المراب	- 5,151	
	Residential area	<del></del>	12.222		5.186		884	18,292			<del></del>
	Office floor area	<del>    -</del>	2.068		555	<del></del> +	3.276	5,899			
	Commercial area	4		<del></del>	1,847	<del></del> +	1.654	6,986	35	53	
	Residential District 8	395	3,485		1,847		0	3,300		<del> </del>	
	Residential area	<del>                                     </del>	3,300		1.614		312	1,926			
	Office floor area	<del>                                     </del>	185		233		1.342	1,760			
	Commercial area	<del>   </del>		<del>`</del>	1,575	<del></del>	1,975	145.045	1,415	1,431	1.4
10-3-3	Residential District 9	552	141,496		1,3/5		1,873	124,623	1,71	<del>                                     </del>	1,7
	Residential area	<del>                                     </del>	124,623			<del></del> -	295	16,319			<u> </u>
	Office floor area	<u> </u>	14,495		1,529 45	+	1.679	4.103	<del>}</del>	-	
	Commercial area	I	2,378				331	45.727	191	454	4
	Residential District 10	213	19,093		26,302		331	38,976	191		
4 52	Residential area	1 3 4 N	16,096		22,880			6.196		<b>!</b>	<del> </del>
	Office floor area	<u> </u>	2,882		3,203	<del></del>	111	555	1	<del> </del>	
100	Commercial area	<del>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          </del>	116		220		220	83.684		B29	E
	Ind. District sta. 40	752	48,523		34,349		813			023	
	Residential area	<del>                                     </del>	40,770		33,220		0	73,990		<del> </del>	
	Office floor area	<del>                                     </del>	7,391		1,109		611	9,110		<del></del>	
- 14	Commercial area	<b></b>	362	<u>_</u>	20		201	584		5.627	5.6
10-3-6	Residential District 17	715	463,017		99,658		3,660	566,335		3,627	9.0
	Residential area	1	429,223		89,648		0	518,870		+	<del> </del>
	Office floor area	<b>↓</b>	29,378		8,752		701	38,831		<del> </del>	<del> </del>
	Commercial area	<b> </b>	4,416		1,258		2,960	8,634		1.050	1.6
10-3-7	Residential District 18	902	0		165,230		1,423	166,653	<u>`</u>	1,652	1.0
* .	Residential area		0	14.7	147,134		0	147,134		<del>                                     </del>	<del> </del>
	Office floor area		0		15,825	- 10 To	287	16,112			├──
	Commercial area		. 0	4 47	2,271		1,136	3,407			<del></del> .
10-3-8	Residential District 19	783	0		116,398		898	117,296		1,164	1,1
	Residential area	_l ll.	0		104,977		0	104,977		<b>↓</b>	ļ
	Office floor area		0		9,988		181	10,169		<del>                                     </del>	<b></b> -
F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Commercial area		0	- ,	1,433		717	2,150		<b> </b>	<b></b>
10-3-9	Planning district V	6,396	2,002	14 14	170		156	2,328		22	
	Residential area	8 25 43	0		. 0		0			<u> </u>	<b>↓</b>
1.500	Office floor area		1,722	5.1	154		0	1,870			<b>├</b>
7 2000	Commercial area	100	280	17	16		156	45	<u> </u>		
10-3-1	Settlement Promyshler	nny					:			100	<del></del>
	Settlement Internation						3 14		_1		ــــــ
	Settlement Michurino			Ų.							
	Settlement Kuygenzha	r			2 -						
1	sub total								<u> </u>		<u> </u>
<del>-  </del>	300 000			l —					100		
	Total	<del>  -   -</del>				<u> </u>	· · · · · · · · · · · · · · · · · · ·				

Table O.4.18 Cost Estimate Sheet for Urban Development, Southern Planning Region, Phase I, II and III (1/2)

	1 #1//10	O,4.18 Cost Esturate 5	Total Area		evelopment							<del></del>		Total
Cost	Code	District / Zoning	to 2030	total		2010			2020			2030		2010 to
			. 1	requires	arca	unit cost	amount	arca	unit cost	emount	area	unit cost	amount	2030
			ha	1,000m2	1,000m2	US\$/m2	US\$1,000	1,000m2	US\$/m2	JS\$1,00	1,000m2 2,235	US\$/m2	US\$1,000	US\$1,000
		Planning Region	24,399	3,930	471		0.434	1,224		13,816	1,177		434,650	456,890
	10-4-1	Residential District 11	1,251	1,288	42	200	8,424	69 69			284	200	56,710	78,950
├		1) low density		395 344	42 0	200 300	8,424 0	09	200 300	13,816	344	300	103,103	103,103
<b>├</b> ──┤		2) medium density		550	- 0	500	0		500	ő	550	500	274,838	274,838
├	10.43	3) high density Residential District 12	668	65	65	300	13,014		~	0	0		0	13,014
<b></b>	10-4-2			65	65	200	13,014	<del>  `</del>	200	Ö	- 0	200	Ö	13,014
├		low density     medium density		0	0	300	0	0	300	0	- 0	300	0	0
<del>                                     </del>		3) high density		o	0	500	. 0	ŏ	500	· 0		500	0	0
<del> </del>	10-4-3	Residential District 13	942	159	159	:	31,770	0		0	0		0	31,770
$\vdash$	10-4-3	1) low density		159	159	200	31,770	01	200	0	0	200	0	31,770
<del>  </del>		2) medium density		0	. 0	300	0	0	300	0	0	300	0	0
-		3) high density		0	0	500	- 0	0	500	0	0	500	0	0
	10-4-4	Residential District 14	1,425	1,003	152		64,974	374		168,069	477	8 1 7	211,648	444,691
1		1) low density		133	33	200	6,600	47	200	9,398	53	200	10,620	26,618
<u> </u>		2) medium density		85	. 1	300	1,971	24	300	7,333	54	300	16,065	25,369
		3) high density		785	113	500	56,403	303	500	151,338	370	500	184,963	392,704
	10-4-5	Residential District 15	820	404	0	1000	0	340		68,068	63		12,680	80,748
		1) low density		404	0	200	0	340	200	68,068	63	200	12,680	80,748
		2) medium density		0	0	300	0	0	300	0	- 0	300	0	0
		3) high density	L	0	0	500	0	0	500	0	0	500	120 273	263,690
	10-4-6	Residential District 16	933	966	8		1,534	440	200	122,784	518		139,373	52,266
	<b></b>	1) low density		261	8	300	1,534	94 347	200 300	18,722 104,062	160 358	300	32,010 107,363	211,425
		2) medium density		705	0	500	0	347	500	104,062	338	500	107,303	0
	10-4-7	high density     Planning District VI (airport	1,885	0	0		- 0		1 300	0	0		O	
<b> </b>	10-4-7		1,003	0	0	200	0		200	0	0		0	0
<b>—</b>	<del></del>	low density     medium density		<del>                                     </del>	0	300	l ŏ		300	0	0		0	0
<b>—</b>		3) high density	<del> </del>	o	0	500	0	0	500	0	0		0	0
	10-4-8	Planning District VII (sports	\	<del>                                     </del>			<del>                                     </del>	<b>†</b>				100		
	1,000	1) low density	<u> </u>	H	17	7		1		<u> </u>		T -	-	7,
<del> </del>	t	2) medium density		1	(included int	o universit	y)						1 2 2 2 2	
	96.5	3) high density		7 37		T	. 1		1				15 5 4 7	
	10-4-9	Planning District VII (univ.)	3,789	45	45	111777	9,000	0	1 2 2 2	0	. 0		0	9,000
		1) low density		45	45					0	0		0	9,000
		2) medium density		0	0					0	0			0
	1	3) high density	<u> </u>	0	0		0	. 0	500	0	0	500	0	0
	10-4-10		.)	1				<b></b>		<b></b>		1		20 7 1
L	↓	1) low density		<b> </b>			Ļ							10 7 1
	<del> </del>	2) medium density	<u> </u>	₩	(included in	to nuiversi	<del>y)</del>	1		<del>                                     </del>		<del> </del> -	<del>                                     </del>	
	10-4-11	3) high density Planning District VIII	12,686	1 0	0		0	. 0		0			0	0
	10-4-11	1) low density	12,000	1 0	0									0
<b>——</b>	+	2) medium density	<del> </del>	<del>   - ŏ</del>	Ö									0
<u> </u>	+	3) high density	<del> </del>	1 o				· <del></del>		0	(	500	0	0
	10-4-12			11		1	1			Ī				
	10-4-13						L			1			ļ	ļ
	note 1)	4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			0			note 2)	<u> </u>	ļ	1			
	low dens							m2/perso	n in gross 2010		on basis of		l floor) ation decrease	
	medium						L	22				demolition		
I	high den	Sity 230-330 pers	onvina, nigri-	ise ouriding	g o stories or	Illote W/CI	value	25			CASICA Cy	demonitor		
			Total Are	<u> </u>	Developmen	nt Cost of	Office Floor				<del></del>	1 1 1 1	10.00	Total
Co	ost Code	District / Zoning	to 2030		1 1 1	2010	100 000	. 1	2020	4	1	2030	e e e e e e e e e e e e e e e e e e e	2010 to
				requires	агса	unit cos			unit cos			unit co		2030
			ha	1,000m2						US\$1,00				US\$1,000
10-4	Souther	rn Planning Region	24,399		1,784		709,95			327,810			205,200	
ļ	10-4-1	Residential District 11	1,25			0 30								
<b>—</b>	10-4-2		661			30						1 30 6 40	<del></del>	1,020 699,094
	10-4-3	Residential District 13	940		1,22									
	10-4-4		1,42: 82			0 30						5 30		
	10-4-5		93			$\frac{30}{1}$						0 30		
	10-4-7								1 30			0 30		
1	10-4-8			5		0 30			5 30			0 30		
t-	10-4-9					0 30		0 1				1 30	0 3,363	
	10-4-1			13		6 30			0 30			8 30	0 2,291	
	10-4-1		12,68			0 30			0 30	0 (		0 30	0 (	0
	10-4-1													Ō
L	10-4-1													0
								ļ		ļ				
L_					1	4	<b></b>	<u> </u>		-			area decrease	4
<u> </u>	<u> </u>		<b>—</b>		<del> </del>					<del> </del> -	costed b	y demolitic	NT WORK	<del></del>
L														

Table O.4.18 Cost Estimate Sheet for Urban Development, Southern Planning Region, Phase I, II and III (2/2)

Γ	·	<u> </u>		Total Area	1	Development	Cost of Co	ommercial A	rea by Pha	\$c					Total
Co	st Code	District / Zoning	!	to 2030	total		2010			2020			2030		2010 to
		•			requires	area	unit cost	amount	area	unit cost	amount	arca	unit cost	amount	2030
Ш.	· · · · · · · · · · · · · · · · · · ·			ha	1,000m2	1,000m2	US\$/m2	US\$1,000	1,000m2	US\$/m2	US\$1,00	1,000m2	US\$/m2	US\$1,000	US\$1,000
10-4	Southern	Planning Region		24,399	310	59		11,703	97		19,399	154		27,890	58,992
	10-4-1	Residential District	11	1,251	32	0	200	30	i	200	133	31	200	6,216	6,379
		Residential District	12	668	6	3	200	515	1	200	141	3	200	599	1,256
	10-4-3	Residential District	13	942	162	40	200	8,087	57	200	11,427	65	200	12,920	32,434
	10-4-4	Residential District	14	1,425	73	14	200	2,860	24	200	4,847	34	200	6,802	14,509
	10-4-5	Residential District	15	820	11	0	200	0	6	200	1,238	5	200	923	2,161
	10-4-6	Residential District	16	933	25	0	200	31	8	200	1,603	17	20	330	1,964
		Planning District VI (a		1,885	0	0	200	0	0	200	0	0	200	0	0
	10-4-8	Planning District VII (	(sports)			(included int	o university	()							
	10-4-9	Planning District VII (	(univ.)	3,789	i	1	200	180	0	200	10	1	200	100	290
	10-4-10	Planning District VII (	(exhib.)			(included inte	o university	<i>i</i> )						·····	
L	10-4-11	Planning District VIII		12,686	0	0	200	0	0	200	Ö	0	200	Ö	0
	10-4-12	Settlement Prigorodno	oye	100			:								
	10-4-13	Settlement Telman					T		-						
							[		<del></del>						l
												zero count	for floor an	ca decrease	1
				:							i	costed by d			
												<u> </u>			

#### 10-4 Cost Summary of Residential, Office, and Commercial Floor Area, and OM Cost in Southern Planning Region

Cos	t Code	District / Zoning	Total Area to 2030	Develope	nent Cost for I	Cesidentia	, Office and	Commerci	al Area by F	hase			aintenance C	
		District? Zorning	10 2030		2010		2020		2030	<del></del>	totel		f developmer	
			ha h		US\$1,000		US\$1,000		US\$1,000		\$1,000	2010	2020	2030
-4	Southern	Planning Region	24,399		850,376		719,946		1,031,440		01,763	US\$1,00 8,504	US\$1,000	US\$1,00
7.	10-4-1	Residential District 11	I,251		8,454		15,906		467,654		92.014	85	15,703	26,01
		Residential area	1,251		8,424		13,816		434,650		56,890	83	244	4,92
Α,		Office floor area	<del></del>	<del></del>	0,424	2								
$\dashv$		Commercial area		1.	30		1,957		26,788		28,745			
	10-4-2	Residential District 12	668		13,529		133		6,216		6,379			
-	10-7-2	Residential area	000		13,014		996		764		15,290	135	145	15
		Office floor area					0		0		13,014			
$\dashv$		Commercial area			0		855		165		1,020			
_	10-4-3				515		141		599		1,256			
-	10-4-3	Residential District 13	942		529,751		170,266	·	63,281		63,297	5,298	7,000	7,63
	<del> </del>	Residential area			31,770		0		0		31,770		1.0	L .
_		Office floor area			489,894		158,839		50,361		99,094		911	
		Commercial area			8,087	·	11,427		12,920		32,434		48.0	I
	10-4-4	Residential District 14	1,425		277,536	4	312,154	100	327,121	9	16,811	2,775	5,897	9,16
	•	Residential area			64,974		168,069		211,648	4	44,691			
		Office floor area			209,702		139,238	,	108,672	4	57,612			
		Commercial area			2,860		4,847		6,802		14,509	1.0	15.5	
	10-4-5	Residential District 15	820		0		77,929		15,199		93,128	0	779	9:
		Residential area			Õ		68,068		12,680		80,748			
]		Office floor area		7.3	and the O		8,623	.:	1,596		10,219			
	2.47	Commercial area			. 0		1,238		923		2,161			
	10-4-6	Residential District 16	933		1,776		135,570		151,667		89,013	18	1,373	2.89
	·	Residential area			1,534		122,784		139,373		63,690		1,20,0	
	·	Office floor area	~ · · · · · · · · · · · · · · · · · · ·		212		11,183		11,964		23,359			<del> </del>
	7 7 7 7	Commercial area	F 1 1 2 2		31		1,603		330		1,964	<del></del>		<del></del>
	10-4-7	Planning District VI (airport	1,885		8,438		302		0		8,739	84	87	-
		Residential area	.,,,,,,	- 7	0,455		0		ő		0,733	- 04	07	·
$\neg$		Office floor area	· · · · · · · · · · · · · · · · · · ·		8,438		302		Ť		8,739			<del> </del> -
$\neg$		Commercial area			0,430		0		0					<del></del>
	10-4-8	Planning District VII (sports)	+		ő		1,625				0			
	10-4-0	Residential area			0		1,623		0		1,625	0	16	
-		Office floor area							0		0			ļ
_		Commercial area			0	·	1,625		0		1,625			·
_	10-4-9		2 222		0		0		0		0			<u> </u>
	10-4-9	Planning District VII (univ.)	3,789		9,180		5,199		3,463		17,842	92	144	17
	<u> </u>	Residential area			9,000		0		0		9,000			<u> </u>
4.3	- 17.	Office floor area			0		5,189		3,363		8,552			
		Commercial area			180	1 41	10	200	100		290			
1,5	10-4-10	Planning District VII (exhib.)	) "	14	1,713		0	1.0	2,291		4,004	17	17	7
	3.5	Residential area		7	0		0		. 0		0			
		Office floor area		,	1,713		0		2,291		4,004			1
		Commercial area			0	1.	0		0		0			
	10-4-11	Planning District VIII	12,686	-	0		0		0		0	0	0	·
	. Ta.	Residential area			0		0		0		0	Ť		
	:	Office floor area			0		0		ò		0			<del> </del>
		Commercial area		- 1	0	<del></del>	- 0		0		0			<del>                                     </del>
_	10-4-12	Settlement Prigorodnoye	7.1	<del> </del>	1.59							<u> </u>	<del></del>	ļ
_	10-4-12	Residential area										<del></del>	· · · · · · · · · · · · · · · · · · ·	
		Office floor area	<b></b>				<del>                                     </del>			<del>                                     </del>		<b></b>		<del> </del>
_		Commercial area	<b> </b>							<b></b>				
	10 4 12	Settlement Telman	<del>                                     </del>			-	<b> </b>			<b></b>		<u> </u>		
	10-4-13		I	12									and the second	
	and d	Residential area		** **	engs.									
	· ·	Office floor area		L		4.4	L					L	1. 1.	
•		Commercial area		L								- 11		[
		1.000					1.5							
.	1		1	I			I		4.0					

Table O.4.19 Cost Estimate Sheet for Urban Development, Northwestern Planning Region, Phase I, II and III

		Total Area		Developa	ent Cost o	f Residenti	al Area by						Total
Cost Code	District / Zoning	to 2030	total		2010			2020			2030		2010 to
0.000		}	requires	arca	unit cost	amount	area	unit cost	amount	area	unit cost	amount	2030
		ha l	1,000 m	1,000 m	US\$/m2	US\$1,000	1,000 m	US\$/m2	US\$1,00		US\$/m2	US\$1,000	
-5 Northwe	stern Planning Region	9,909	1,795	82		18,200	1,296		425,608	417		121,130	564,938
10-5-1	Residential District 1	332	204	0		0	99		28,222	105		27,695	55,917
	1) low density		54	0	200	0	15	200	2,957	39	200	7,895	10,852
	2) medium density	1	150	0	300	0	84	300	25,265	66	300	19,800	45,065
	3) high density		0	0	500	0	0	500	0	0	500		148 22
10-5-2	Residential District 2	441	595	18		5,400	266		79,807	311		93,435	178,64
	1) low density	1	0	O O	200	0	0	200	0	0	200	0 426	170 (4)
	2) medium density	T	595	18	300	5,400	266	300	79,807	311	300 500	93,435	178,642
	3) high density		0	0	500	0	0	500	0	0	300	0	12,80
10-5-3	West industrial district	575	64	64		12,800	0		0	0			_
	1) low density	1	64	64	200	12,800	0	200	0	0	200	0	12,80
	2) medium density		0	0	300	0	0	300	0	0	300 500	0	
	3) high density	T	0	0	500	0	0	300	0	0		- 0	317,57
10-5-4	Residential District 4B	685	931	0		0	931		317,579	0	000		40,46
	1) low density		202	0	200	0	202	200	40,467	0	200	0	
~-	2) medium density		436		300	0	436	300	130,680	0	300 500	0	130,68
	3) high density		293	1		0	293	500	146,432	0	300	1 0	
10-5-5	Planning district IX	7,876	0	<u> </u>		0	. 0	ļ <u></u>	0	0	200	- 0	ŧ
	1) low density		0			0	0	200	0	0	200 300	- 0	<del> </del>
	2) medium density		0			0	0	300	0	0		<del>                                     </del>	<b></b> -
	3) high density		0	0	500	0	0	500	0	0	300	<del>                                     </del>	<u> </u>
					<del> </del>	ļ	1	21.0	<del></del>	$\vdash$	<del>├</del> ──	+	-
note 1)		1	Ш	1	<u> </u>	-	note 2)	ــــــــــــــــــــــــــــــــــــــ	1	<u> </u>	residential	<u> </u>	<del> </del>
low dens	ity 10-100 perso	n/ha, detache	d house 1-2	stories	<u> </u>	<del> </del>		n in gross	(calculatio			ation decrea	
medium	lensity 100-250 pers	on/ha, apartm	ent till 5 sto	ries wo/ele	vator		18		$\vdash$		demolition		1
high den	sity 250-350 pers	on/ha, hìgh-ri	se building	6 stories or	more w/ele	vator	22		<b>├</b>	costed by	/ Gemontion	I WORK	<del> </del>
	T		11				25	2030	<u></u>	<u> </u>	1	1	<u> </u>

	<u> </u>	Total Area		Developn	nent Cost o	f Office Fl	oor Area l	y Phase	a Property		tue tu		Total
Cost Code	District / Zoning	to 2030	total	. 3.	2010	1.5	1 1 1	2020		- 1	2030		2010 to
2001 2004			requires	area	unit cost	amount	arca	unit cost	amount	arca	unit cost	amount	2030
		ha	1.000m2	1,000m2	USS/m2	US\$1,000	1,000m2	US\$/m2	US\$1,00	1,000m2	US\$/m2	US\$1,000	US\$1,000
10-51 Northwes	stern Planning Region	9,909	163	14	11.57	4,075	116		34,663	34	11.00	10,160	48,897
	Residential District 1	332	18	0	300	0	9	300	2,744	9	300	2,645	5,389
	Residential District 2	441	38	0	300	0	20	300	6,029	18	300	5,253	11,282
	West industrial district	575	21	8	300	2,276	7	300	2,117	6	300	1,798	6,191
	Residential District 4B	685	87	6	300	1,799	79	300	23,773	2	300	464	26,036
	Planning district IX	7,876	0	0	300	- 0	0	300	0	0	300	0	0
<del>                                     </del>		-		·				1.1			0.77 (		1
<del>                                     </del>		1	II	1.						zero coun	t for floor s	rea decrease	:
ļ <del>-</del>	<del> </del>	<del>                                     </del>		<del> </del>	7.74					costed by	demolition	WORK	
<del>  </del>	<del> </del>	-	1	t	1				1		1		

		Total Area		Develope	nent Cost o	f Commerc	ial Area l	y Phase	5 1		andreal a		Total
Cost Code	District / Zoning	to 2030 1	total		2010	3.00		2020		. H. W. C	2030	A A A	2010 to
			requires	area	unit cost	amount	area	unit cost	amount	area	unit cost	amount	2030
3.34	The second second	ha l	1,000m2	1,000m2	US\$/m2	US\$1,000	1,000m2	US\$/m2	US\$1,00	1,000m2	US\$/m2	US\$1,000	US\$1,000
10-51Northwe	stern Planning Region	9,909	30	2		468	23		4,563	25	30,000	5,032	10,063
	Residential District 1	332	7	0	200	0	1	200	189	6	200	1,260	1,449
	Residential District 2	441	16	7	200	337	4	200	837	10	200	1,932	3,107
10-5-3	West industrial district	575	0	0	200	0	0	200	0	0.	200	. 3	3
	Residential District 4B	685	28	ī	200	130	18	200		9	⇒ 200	1,837	5,504
	Planning district IX	7,876	0	0	200	. 0	0	200	0	0	200	0	0
		1					14				18,86.0		<u> </u>
	<del></del>	1		<del> </del>						zero coun	t for floor s	rea decrease	-
<del></del>	<del>                                     </del>	<del>                                     </del>	1	<del> </del>			T		1	costed by	demolition	work	
		1	\ <del>\</del>	1 —	1	1							1

## 10-5 Cost Summary of Residential, Office, and Commercial Floor area, and OM Cost in Northwestern Planning Region

		Total Area	De	velopmo	nt Cost fo	r Residenti	al, Offic	e and Comm	ercial As	ea by Phas	e Mai	ntenance (	ost
Cost Code	District / Zoning	to 2030		ar egil is		12.15%		100	•	100	1 % of	developme	nt cost
Cost Code	District, Folding	"" "		2010		2020	1.1	2030		total	2010	2020	2030
		ha   -		\$1,000	. 1	US\$1,000		US\$1,000		US\$1,00			
0-5 Northwe	stern Planning Region	9,909	2	22,742		464,834		136,321	pro-	623,898	227	4,876	6,23
	Residential District 1	332		0		31,155		31,600		62,755	0	312	62
<del> </del>	Residential area	1 11		0		28,222	13	27,695		55,917	Tara a	4 4	
<del></del>	Office floor area	1 1		0		2,744	-	2,645		5,389			
<del></del>	Commercial area	1 1		0		189	7	1,260	1 1	1,449	1.2	1.0	A Section 1
10-5-2	Residential District 2	441		5,737		86,673		100,620		193,031	57	924	1,93
10-3-2	Residential area	1 1		5,400	1	79,807		93,435		178,642	7.1		
	Office floor area	1		0		6,029		5,253		11,282	30000	1.0	
	Commercial area	<del>  </del>		337		837		1,932	:	3,107	1.7575.4	100	
10-5-3	West industrial district	575		15,076		2,117		1,800		18,994	151	172	19
10-3-3	Residential area	1 1		12,800		0	,	1 0		12,800	· · ·		
	Office floor area	1 1		2,276		2,117		1,798		6,191	1.7 4.750		
	Commercial area	1 !!	<b></b>	0		0		3		- 3	41577271	2000	
10-5-4	Residential District 4B	685		1,929		344,889		2,301		349,119	19	3,468	3,4
10-3-4	Residential area	1 33		0		317,579	1.	0		317,579			
	Office floor area	1	<del>                                     </del>	1.799		23,773		464		26,036	\$47.2	I	
	Commercial area		<del> </del>	130		3,537		1,837	7 2	5,504		T	1
10-5-5	Planning district IX	7,876	<b></b>	0		0		0		0	0	0	
10.7-5	Residential area	- <del>                                     </del>		ō		0		Ö		0			
<del></del>	Office floor area	t	<del>                                     </del>			0		0		0			
	Commercial area			0	<del></del>	0	<b>-</b>	0		- 0			
$-\!\!\!\!+\!\!\!\!-\!\!\!\!-$	Continued at a loa	<del>i</del>	<del>      -   -   -   -   -   -   -  </del>		-	1	<u> </u>	·1					

Table O.4.20 Cost Estimate Sheet for Transportation Sector, Phase I, II and III (Direct Construction Cost, O Cost and Replacement Cost) (1/6)
US\$ 1.0=Tenge 144.0=JY 108.0

Code		21.5				Unit		2010	· · · · · · · · · · · · · · · · · · ·		2020	1.54		2030		2010 to
Color			Descript	ions	1941 July 1960	Omi			omount	O'tv		amount	O'tv		amount	2030
20-1   a)   Special Road   Direct Construction Cost   Special Road   Direct Construction Cost   Special Road    ode		74		13.44		Qty			<u> </u>			<u> </u>		US\$1,000	US\$1,000	
20-1   3  Special Road   Direct Construction Cost   Special Road   Special Road		. 12		<b>5</b>	tio Cost			033			- 000			334	0	
Sp-2   2.51 km   lane   new   km   1.25   800,000   1.000   0   0   0   0   0   0   0   0   0	)-1 a)					1	2.51	900 000							0	2,008
Sp-3   1.25 km   tane   new   km   3.76     0.00     150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150															0	1,000
150   0   0   0   0   0   0   0   0   0				lane	new			800,000	1,000	0.00		-	0.00			1,000
Column   C		total					3.76		150	0.00		150	0.00		150	
20-2 a) Main Streets of City Importance/Main roads (Arterial  a-1 28.55 km 4 lane new & improve km 5.44 2.990 51.69 2.814   a-2 57.75 km 4 lane new & improve km 15.34 10,650 0 0	b)	) [O&M (	Cost per annu	m per direct co		)					· · · · · · · · · · · · · · · · · · ·				0	
a   1   28.55 km   4   lane   new & improve   km   28.55   11,300     0	()	) Replace	ement Cost	Structure life (	year) 50	1			Ų							
3   1   28.55 km   4   lane   new & improve   km   28.55   11,300     0									CO 303			14.406			27 378	
24-1   28-35 km	)-2 a)	) Main S				<u> </u>									0	11,300
a-3   21.87 km   6   lane   law & limprove   km   15.34   10.650   0   0										61.60		-			0	5,804
a-4   13.72 km	T.									31.69	<del>_</del>				0	10,650
3-4   13.72 km		a-3												<b></b> _	0	4,624
3-6   19.99 km															0	12,240
2-3   3.99 km   6 lane   improve   km   5.04   400,000   2,016     0		a-5								2 4 4	100 000		2.41	400.000		2,612
20-3 a   Main Streets of City Importance (Primary Roads)   3,04   4   300,000   5,028   5,000   1,160   4,51   8,00,000   3,608   6,24   5,000   6,24   5,000   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6,24   6		a-6								2.46	400,000		3.41	400,000		2,016
28   7.61 km   6 lane   new   km   7.41   800,000   3,608		a-7	7.04 km		improve	km									0	
A-10   5.68 km   6 lane   new   km   2.65   800,000   2,120   0   2.83   800,000   2,26		a-8			new						200 000			<b>}</b>	0	5,928
Sp-1   75.50   km   14.00   500,000   7,000   14.00   500,000   7,000   47.50   500,000   23.75		a-9			new					4.51	800,000		2.02	000 000	0	4,768
Sp-1   73.50   Street   73.50   Street   Structure		a-10		6 lane	new					4 4 5 5						4,384
b) O&M Cost per annum per direct const. cost   5 %   3,015   3,735   5,10		sp-1				km		500,000	7,000		500,000	7,000		500,000	23,730	37,750
c) Replacement Cost Structure life (year) 50							91.81			58.66		2.72.4	6.24		5 104	
Color   Replacement Cost Structure life (year)   30   30   30   30   30   30   30   3	b)	) O&M	Cost per annu	ım per direct c		0										
P-1   15.28 km	c)	) Replac	ement Cost	Structure life (	year) 50	<u> </u>	ļ		0			0			0	<u> </u>
P-1   15.28 km												10 200	-		Δ.	
p-1   13.28 km	0-3 a)	) Main S	Streets of Cit	y Importance	(Primary Roads)										0	
P-2   5.84 km   4 lane   improve   km   1.94   300,000   582		p-1	15.28 km	4 lane	new & improve										0	7,190
p-4   3.87 km   4 lane   new   km   1.74   500,000   870   2.13   500,000   1,065     p-5   8.30 km   4 lane   new & improve   km   0   7.90   4,230     p-6   13.79 km   4 lane   new & improve   km   1.41   500,000   705   6.71   500,000   3,355     p-7   13.55 km   4 lane   new & improve   km   4.66   2,290   8.89   4,280     p-8   4.79 km   4 lane   new   km   1.00   500,000   500   3.67   500,000   1,835     p-9   6.27 km   4 lane   new & improve   km   0.24   300,000   72   0     p-10   3.34 km   4 lane   new   km   1.65   500,000   825   1.67   500,000   835     total   83.14 km   km   26.77   36.19   0.00				4 lane	improve										0	582
p-5       8.30 km       4 lane       new & improve       km       0       7.90       4,230         p-6       13.79 km       4 lane       new & improve       km       1.41       500,000       705       6.71       500,000       3,355         p-7       13.55 km       4 lane       new & improve       km       4.66       2,290       8.89       4,280         p-8       4.79 km       4 lane       new       km       1.00       500,000       500       3.67       500,000       1,835         p-9       6.27 km       4 lane       new & improve       km       0.24       300,000       72       2,090         p-10       3.34 km       4 lane       improve       km       0.24       300,000       72       0         p-11       8.11 km       4 lane       new       km       1.65       500,000       825       1.67       500,000       835         total       83.14 km       km       26.77       36.19       0.00       1,536       1,536	$\dashv$			4 lane	new		1.74	500,000			500,000				0	1,935
p-6         13.79 km         4 lane         new & improve         km         1.41         500,000         705         6.71         500,000         3,355           p-7         13.55 km         4 lane         new & improve         km         4.66         2,290         8.89         4,280           p-8         4.79 km         4 lane         new         km         1.00         500,000         500         3.67         500,000         1,835           p-9         6.27 km         4 lane         new & improve         km         0.24         300,000         72         2,090           p-10         3.34 km         4 lane         improve         km         0.24         300,000         72         0           p-11         8.11 km         4 lane         new         km         1.65         500,000         825         1.67         500,000         835           total         83.14 km         km         26.77         36.19         0.00         1,536         1,536				4 Іапе	new & improve				-						0	4,230
p-7         13.55 km         4 lane         new & improve         km         4.66         2,290         8.89         4,280           p-8         4.79 km         4 lane         new         km         1.00         500,000         500         3.67         500,000         1,835           p-9         6.27 km         4 lane         new & improve         km         0         5.22         2,090           p-10         3.34 km         4 lane         improve         km         0.24         300,000         72         0           p-11         8.11 km         4 lane         new         km         1.65         500,000         825         1.67         500,000         835           total         83.14 km         km         26.77         36.19         0.00           b) O&M Cost per annum per direct const. cost         5 %         652         1,536         1,536				4 lane	new & improve	km		500,000			500,000				0	4,060
p-8         4.79 km         4 lane         new         km         1.00         500,000         500         3.67         500,000         1,835           p-9         6.27 km         4 lane         new & improve         km         0         5.22         2,090           p-10         3.34 km         4 lane         improve         km         0.24         300,000         72         0           p-11         8.11 km         4 lane         new         km         1.65         500,000         825         1.67         500,000         835           total         83.14 km         km         26.77         36.19         0.00         0.00           b)         O&M Cost per annum per direct const. cost         5 %         652         1,536         1,536	-+			4 lane	new & improve	km								1	0	6,570
p-9         6.27 km         4 lane         new & improve         km         0         5.22         2,090           p-10         3.34 km         4 lane         improve         km         0.24         300,000         72         0           p-11         8.11 km         4 lane         new         km         1.65         500,000         825         1.67         500,000         835           total         83.14 km         km         26.77         36.19         0.00           b) O&M Cost per annum per direct const. cost         5 %         652         1,536         1,536				4 lane	new		1.00	500,000			500,000			<b></b>	0	2,335
P-10   3.34 km   4 lane   improve   km   0.24   300,000   72     0	-			4 lane	new & improve	km				5.22					0	2,090
P-11   8.11 km   4 lane   new   km   1.65   500,000   825   1.67   500,000   835	<del>-   -</del>			4 lane		km									0	72
total 83.14 km km 26.77 36.19 0.00 b) O&M Cost per annum per direct const. cost 5 % 652 1,536 1,536						km		500,000	825		500,000	835			0	1,660
b) O&M Cost per annum per direct const. cost 5 % 652 1,536 1,53	-					km	26.77			36.19			0.00			
	— h		Cost per annu	ım per direct c	onst. cost 5 %	ó			652						1,536	
	6)	) Replac	ement Cost	Structure life (		1			0			0			0	
	<del></del> -	, <u> </u>			T		1								<u> </u>	

Table O.4.20 Cost Estimate Sheet for Transportation Sector, Phase I, II and III (Direct Construction Cost, O Cost and Replacement Cost) (2/6)

2010 to 2030 Descriptions 2030 unit cost amount O'tv Cost unit cost amount O'tv amount unit cost O'ty US\$1,000 US\$1,000 US\$ Code US\$ US\$1,000 US\$1,000 US\$ 11,050 34,257 18,716 Main Streets of Regional Importance (Secondary Road) 75 0 0 0.25 300,000 75 km 4 lane improve 540 0 2.64 km ō 540 300,000 1.80 km 4 lane improve 1.80 km 561 0 s-2 561 1.87 300,000 km improve 1.87 km 4 lane 1.112 s-3 2.42 1,112 km new & improve 1,581 4 lane 4.82 km 0 s-4 1,581 4.33 km new & improve 9.65 km 4 lane 0 189 0.63 300,000 189 km improve 180 4 lane 0.63 km ō s-6 0 0.60 | 300.000 180 km improve 1,949 4 lane 0.60 km 0 s-7 1,949 0 4.73 km new & improve 4 lane 2.944 5.03 km 220 s-8 2,724 0.44 500,000 5.76 0 km new & improve 2,606 6.32 km 4 lane 2,606 0 5.84 0 km new & improve 4 lane 4,102 0 s-10 5.84 km 2,297 3.61 500,000 1,805 6.01 km new & improve 4 lane 1,185 9.62 km 0 s-11 305 880 0.61 500,000 1.76 500,000 km new 1,481 4 lane s-12 2.94 km 0 426 1,055 1.32 2.11 500,000 km new & improve 3,555 5.61 km 4 lane 0 s-13 1,100 2,455 2.68 4.91 500,000 km new & improve 4 lane 1,017 7.71 km 0 s-14 1,017 3.39 300,000 km improve 4 lane 3.39 km 0 506 s-15 0 506 1.18 new & improve km 1.86 km 4 lane 642 s-16 0 642 1.66 new & improve km 4 lane 838 1.66 km s-17 0 0 838 0.69 km new & improve 4 lane 1.01 km 1,080 s-18 0 564 300,000 1.72 300,000 516 1.88 km 4 lane improve 3.60 km 0 680 s-19 680 500,000 1.36 km 1.36 km 4 lane new 1,295 s-20 0 1,295 500,000 2.59 km 2.59 km 4 lane new 1,260 0 s-21 1,260 500,000 2.52 km 4 lane new 1,385 2.52 km s-22 0 2.77 | 500,000 1,385 km 4 lane new s-23 2.77 km 1,390 0 1,390 2.78 500,000 km 4 lane new 640 2.78 km s-24 0 1.28 500,000 640 km 4 lane new 1.28 km 1.630 s-25 1,000 500,000 1.26 500,000 2.00 630 km new 3.26 km 4 lane 1,180 s-26 1,000 2.00 500,000 500,000 180 0.36 km 4 lane new 2.36 km 610 s-27 0 610 1.22 500,000 0 km

0.36

km

km

km

km

km

km

km

km

km

500,000

180

0

0

0

2.01

1.58

1.52

1.26

4,30

3.51

5.04

1.46

5.16

500,000

500,000

500,000

500,000

500,000

500,000

500,000

500,000

500,000

0

0

0

0

0

0

0

2,260

1,005

790

760

630

2,150

1,755

2,520

2,580

730

4.52 500,000

1.185

790

760

630

2,150

1,755

2,520

4,840

730

4 lane

1.22 km

2.37 km

1.58 km

1.52 km

1.26 km

4.30 km

3.51 km

5.04 km

1.46 km

9.86 km

s-28

s-29

s-30

ls-31

s-32

s-33

s-34

s-35

s-36

s-37

new

Table O.4.20 Cost Estimate Sheet for Transportation Sector, Phase I, II and III (Direct Construction Cost, O Cost and Replacement Cost) (3/6)
US\$ 1.0=Tenge 144.0=JY 108.0

Cost			Descriptions	Unit		2010			2020			2030		2010 to
Code			The state of the s		O'tv	unit cost	amount	Q'ty	unit cost	amount	Q`ty	unit cost		2030
Code		1	and the second of the second o				US\$1,000		US\$	US\$1,000		US\$	US\$1,000	US\$1,000
		s-38	2.78 km 4 lane new	km			0	2.78	500,000	1,390			0	1,390
<b></b>		s-39	2.71 km 4 lane new	km			0	2.71	500,000	1,355			0	1,355
<del>                                     </del>	1	s-40	2.27 km 4 lane new	km			0	2.27	500,000	1,135			0	1,135
		s-41	3.92 km 4 lane new	km			0			0		500,000	1,960	1,960
<b></b>		s-42	1.95 km 4 lane new	km			0			0		500,000	975	975
<del> </del>		s-43	3.29 km 4 lane new	km			0			0		500,000	1,645	1,645
-		s-44	2.87 km 4 lane new	km			0			0		500,000	1,435	1,435
<b>-</b>		s-45	2.62 km 4 lane new	km			0			0	2.62	500,000	1,310	1,310
-		s-46	2.49 km 4 lane new	km			0			0	2.49	500,000	1,245	1,245
<del></del>		total	52.54 km	km	41.29			74.57			22.10			
<del></del>	h)	O&M (	Cost per annum per direct const. Cost 5 %				936			2,649			3,201	
<u> </u>		Danlace	ement Cost Structure life (year) 50				0			0			0	
<b></b>	(J	Replace	chieff Cost Scracture inc Gear)											
20.6		Strants	and Roads of Local Importance (Tertiary Road)				5,400			14,400	······		3,555	
20-5	a)		19.75 km 2 lane new	km	18.00	300000	5,400			0			0	5,400
			(t-1, t-2, t-3, t-5, t-6, t-7, t-8, t-44, t-46, t-47,	KJII.	10.00	300000	3,.00					1		
				<del>                                     </del>			<u> </u>		·					
<u> </u>			t-48, t-49, t-50) 48,93 km 2 lane new	km			0	48.00	300,000	14,400			0	14,400
<u> </u>		TR2		1711			- v	10.00	000,000	2 1,7 1.0 2				<u> </u>
			(t-10, t-15 to t-23, t-25, t-26, t-28 to t-33, t-35 to							<u> </u>	<u> </u>	<u> </u>		f
			t-43, t-45, t-49, t-51, 53, 54, 56)	km			0			0	11.85	300,000	3,555	3,555
		TR3	11.85 km 2 lane new	KIII						<u>`</u>		300,000	,	,
		<u>.                                    </u>	(t-34, t-55, t-57)	1	18.00			48.00		<del>                                     </del>	11.85			
		total	80.53 km Cost per annum per direct const. Cost 5 %	km	10.00	<del></del>	270	76.00		990			1,168	
ļ	<u>b)</u>	O&M (					270	ļ		0			0	
i	c)	Replace	ement Cost Structure life (year) 50							├ <u>*</u>		<u> </u>		
				<u> </u>		-	4,950			0	ż		0	
20-6	a)	Trolley	y Bus Proje Direct cost		20.00		2,950			0		<del>                                     </del>	0	2,950
			Reconstruction & Construction of Catenary Cables		30.00					0		<del> </del>	0	2,000
		20-6-	Power station construction	sta.	4.00		2,000			248	<del> </del>		248	2,000
	b)	O&M (	Cost per annum per direct const. Cost 5 %	ļ			248			0	<b></b>	<del> </del>	0	<del> </del>
	c)	Replace	ement Cost Structure life (year) 30	L			0	ļ		<b>├</b>			· · · · · ·	
				<u> </u>						(000	<u> </u>	ļ	£ 300	
20-7	a)	Bridge	(b-2 to b-2 Direct Construction Cost				7,327			6,864			5,280	ļ
	,	b-2	200 m 4 lane new RC	m2			0			0	800	1,200	960	960
		b-3	200 m 4 lane new RC	m2			0	800	1,200	960			0	960
		b-4	200 m 4 lane new RC	m2			0	<u> </u>		0	800	1,200	960	960
		b-5	50 m 4 lane new RC	m2			0	200	1,200	240		<u> </u>	0	240
		b-6	200 m 6 lane new RC	m2	1,200	1,200	1,440			0		<u> </u>	0	1,440

Table O.4.20 Cost Estimate Sheet for Transportation Sector, Phase I, II and III (Direct Construction Cost, O Cost and Replacement Cost) (4/6)

US\$ 1.0=Tenge 144.0=JY 108.0

auic '	<del></del>	, Cust		sheet for 1 rai						<del></del>		US\$ 1.0=Te 2020	- <del></del>		2030		2010 to
<u> </u>			Descript	ions	<del></del>		Unit		2010		O'+- T	unit cost	amount	Q'ty	unit cost	amount	2030
Cost		1	Descripe					Q`ty	unit cost	amount	Q'ty	US\$	US\$1,000		USS	US\$1,000	US\$1,000
Code										US\$1,000		033	0			0	1,087
	- (,		151 m	6 lane	new		m2	906	1,200	1,087			0			0	1,440
	1.	b-7	200 m	6 lane	new	RC	m2	1,200	1,200	1,440			- 0			0	1,440
		b-8	200 m	6 lane	new	RC	m2	1,200	1,200	1,440			0			0	1,440
		b-9	200 m	6 lane	new	RC	m2	1,200	1,200	1,440		1 200	960			0	960
		b-10	200 m	4 lane	new	RC	m2			0	800	1,200	960			0	960
		b-11		4 lane	new		m2			0	800	1,200	480			0	480
		b-12	200 m	2 lane	new	RC	m2			0	400	1,200				0	1,440
		b-13	200 m	6 lane	new	RC	m2			0	1,200	1,200	1,440	1,200	1,200	1,440	1,440
		b-14	200 m	6 lane	new	RC	m2			0			960	1,200	1,200	0	960
		b-15	200 m	4 lane	new	RC	m2			0	800	1,200		800	1,200	960	960
		b-16	200 m	4 lane	new	RC	m2			0			0	800	1,200	960	960
		b-17	200 m	4 lane	new	RC	m2			0		1 200	864	800	1,200	0	864
		b-18	200 m	4 lane	new	RC	m2			0	720	1,200				ō	240
		b-19	180 m	4 lane	new	RC	m2	200	1,200	240		<u> </u>	0		<del></del>	0	240
		b-21	50 m	4 lane	new	RC	m2	200	1,200	240		<u> </u>	0		<u> </u>		
		b-22	50 m	4 lane	new	RC	m2			0	200	1	0	1 400		<u>`</u>	
		b-24	50 m	4 latte	new		m2	6,106			5,920		- 201	4,400	ļ <u>-</u>	389	
		total	3,531 m	- diment o	onet Cost	2 %		<del> </del>		147	<u> </u>		284			0	
	b)	0&M C	ost per anni	um per direct c	OHST. COST	50	1			0	<u> </u>		0		<del> </del>		
	(c)	Replace	ment Cost	Structure life (	year)		†	1								78,892	
					Co.	et	<del>                                     </del>	<del>                                     </del>		55,380		<u> </u>	4,512			10,072	86-
20-8	a)	Bridge	(f-3 to f-15	Direct Constr	action Co	RC	m2	<del> </del>	†	0	720	1,200	864			0	2,880
		f-3	180 m	4 lane	new	RC	m2	2,400	1,200	2,880		i	0			0	1,92
		f-4	400 m	6 lane	new	RC	m2	2,,,,,,	<del>  -,</del>	.0	1,600	1,200			1 200	960	96
		f-5	400 m	4 lane	new	RC RC	m2	<del>                                     </del>	-	0			0	800	1,200		57
<del>,</del>		f-6	200 m	4 lane	new	RC	m2	<del>                                     </del>	<del> </del>	0	480	1,200			<u> </u>	0	57
		f-8	120 m	4 lane	new		m2	+	<b>-</b>	0	480	1,200	576		<u> </u>		57
		f-9	120 m	4 lane	new	RC RC	m2	+	<del>                                     </del>	0	480	1,200			1	0	43
	T	f-10	120 m	4 lane	new	RC RC	m2	<del>                                     </del>	<del> </del>	0			0	360	1,200	432	43
		f-12	60 m	6 lane	new	RC RC	m2	<del> </del>	<del> </del>	0	480		0		1 - 2 - 2 - 2		77,50
		f-13	120 m	4 lane	new	RC RC	m2	<del>                                      </del>	<del>                                     </del>	0	1	T	0	31,000	2,500	77,500	
	1	f-14	3,100 m	10 m	new	RC RC	m2	21,000	2,500	52,500	<del>- </del>		0			0	52,50
		f-15	2,100 m	10 m	new	KC	m2			1	4,240	)		32,160			
	1	total	6,920 m					23,400	<del></del>	1,108	<u> </u>		1,198			2,776	<u> </u>
	b)	0&M	Cost per ann	num per direct o	const. Cos	t 2 %	<u> </u>	<del> </del>	<del> </del>	0			0			0	
		Deniac	ement Cost	Structure life	(year)	50	┼	-	+	<u>`</u>	<del></del>						
	(2)	RCPIAC					1					<del></del>	0			30,000	I
	c)	Replac															
20-9	c)	Tunne		Direct Const	ruction Co	ost	m			0			0		75,000	30,000	30,00

Table O.4.20 Cost Estimate Sheet for Transportation Sector, Phase I, II and III (Direct Construction Cost, O Cost and Replacement Cost) (5/6)

US\$ 1.0=Tenge 144.0=JY 108.0

	••••	20 (031 23.	-	·						US\$ 1.0=Te	nge 144.0	J=J Y 108	2030		2010 to
Cost			Descriptions		Unit		2010			2020		<u></u>		amount	2010 10
Code					٠.	Q'ty	unit cost		Q'ty	unit cost	amount	Q`ty	unit cost	us\$1,000	US\$1,000
Couc		1.5					USS	US\$1,000		US\$	US\$1,000		US\$	300	0331,000
	b) I	O&M Cost r	er annum per direct const. Cost	1 %				0			0			0	
	c)	Replacemen	Cost Structure life (year)	100				0			0			<u> </u>	
	-'						l				CO 600		<u> </u>	157,500	
	8)	LRT	Direct Construction Cost					156,500	ļ.,		63,500				156 500
20-10			2 km 16 station new		LS	1		156,500			0			0	156,500 63,500
20-11		L-2	8 km 8 station new		LS			0	1		63,500			157,500	157,500
20-12		L-3	2 km 23 station new		km			0			0	1	ļ—.·	15,100	137,300
20	<b>b</b> )	O&M Cost	er annum per direct const. Cost	4 %				6,260			8,800	 		13,100	<del></del>
	6)	Replacemen	Cost Structure life (year)	30				0			0			<u> </u>	<b> </b>
	<del></del>												<u> </u>	200	<u> </u>
	2)	Terminal	Direct Construction Cost		<u> </u>			2,700			300		ļ	300	1.00
20-13	-4)	Torminal (	- m2 12,500 Akmola station		LS	1		1,300			0		<u> </u>	0	1,30
20-13		Terminal (	- m2 3,000 Abylaikhan sta.		LS			0			0	1		300	30
20-15		Terminal (	- m2 3,000 City park of cultur	al & Rec.	LS	1		300			0			0	30
20-15		Terminal (	- m2 3,000 Int. exiibition a cit	v a. port	LS			0	1		300		<u> </u>	0	30
20-10		Terminal (	- m2 2,000 Government city	7	LS	1		1,100			0			0	1,10
20-17	h)	O&M Cost	er annum per direct const. Cost	0.5 %				14		<u> </u>	15			17	
_	(A)	Replacemen	Cost Structure life (year)	100	i			0			0		<u> </u>	0	<del> </del>
	-	Ropidoonio											1	100	<u> </u>
	-	Traffic Lia	nt/Control Cen Direct Construction	on Cost				3,990			2,348			693	
20-18		Traffic ligh		<del></del>	set	180	5,500	990	245	5,500	1,348	35	5,500	193	2,53
20-10		Traffic con			LS	1		3,000	1		1,000	1		500	4,50
20-19		Parking fa			1	<u>†</u>		0			0	<u> </u>		0	
20-20		Street envi	onment improvement (-do-)					0			0			0	<u> </u>
20-21	h)	O&M Cost	per annum per direct const. Cost	2 %		<u> </u>		80			127		ļ	141	ļ
	10)	Denlacemen	t Cost Structure life (year)	15		1		0			3,990		ļ	2,348	ļ
	5	Tepraceine.	COOL DESCRIPTION OF THE PROPERTY OF THE PROPER			- "			_	l					4
	105	Railway	Direct Construction Cost		1	<u> </u>		0			30,600			0	
20.22		Railway	double track new		km		1	0					<u> </u>	0	
20-22		Cargo yare			ha	1		0	1					0	1
20-23		Cargo yard			ha		<u> </u>	0	3.0	2,000,000				0	6,00
20-24	11	OBM Com	per annum per direct const. Cost	2 %		1		0			612		<u> </u>	612	<u> </u>
	있	Deplecemen	t Cost Structure life (year)	50	1	1	1	0			0			0	
	1 c)	Replacemen	t Cost Birthethre me (John)		1	1									
20.25	1-	Airpo , im	prove Direct Construction Cost		1	<del> </del>	1	19,500			0			0	<b>_1</b>
20-25	(a)		national airport improvement		LS	1.00	<del> </del>	19,500	1		0			0	19,50
	$\vdash$	Astana inte	al buildings, technical service cent	fer	100	<del> </del>	<del></del>	T	<u> </u>						
	<del> </del>	(new term)	on buildings, technical service cent	,	+	<del>                                     </del>	<del>                                     </del>		1		1		T		
	1	runway 3,6	00 m x 45 m etc.)		<u> </u>		<u> </u>			<u> </u>					

Table O.4.20 Cost Estimate Sheet for Transportation Sector, Phase I, II and III (Direct Construction Cost, O Cost and Replacement Cost) (6/6)
US\$ 1.0=Tenge 144.0=JY 108.0

										OO# 1.0 1	B · · ·				***
O 4			Descriptions		Unit		2010			2020			2030		2010 to
Cost		1.1	Descriptions			O'tv	unit cost	amount	Q`ty	unit cost	amount	Q`ty	unit cost		2030
Code						X .7	US\$	US\$1,000		US\$	US\$1,000		US\$	US\$1,000	US\$1,000
<del></del>	- L	0274	Cost per annum per direct const. Cost 5	%				975			975			975	
	0)	Occivi C	ement Cost Structure life (year) 100	<u></u>			†	0			0			0	
	c)	Replace	ement Cost Structure life (year) 100			<del> </del>						····	-		
								350,797			188,877			314,648	854,321
	a)	Total,	Direct Construction Cost		<u> </u>		ļ	330,797			· · · · · · · · · · · · · · · · · · ·			854,321	
	•	Cumul	ative, Direct Copnstruction Cost								539,674		<del>                                     </del>	034,321	
					<u> </u>	ļ	<del> </del>	13,852			35,171		1	66,887	
	b)	Total,	Annual Operation and maintenance Cost		<u> </u>	<del> </del>	<del> </del>	13,652			33,1/1		<del> </del>	00,001	· · · · · · · · · · · · · · · · · · ·
						-	<del> </del>	1		<u></u>	3,990		<del>                                     </del>	2,348	
	c)	Total,	Replacement Cost		-	<del> </del>	<del> </del>	<b>├</b>					<u> </u>	1	
		1	· · · · · · · · · · · · · · · · · · ·		i		I	i			I				· · · · · · · · · · · · · · · · · · ·

Table O.4.21 Cost Estimate Sheet for Water Resources Sector, Phase I, II and III (Direct Construction Cost, O&M Cost, and Replacement Cost)

US\$ 1.0=Tenge 144.0=JY 108.0

Cost			Descriptions	Unit		2010			2020			2030		2010 to
A. 1.	- 1	1000		1 1	Q'ty	unit cost	amount	Q'ty	unit cost	amount	Q`ty	unit cost	amount	2030
Code						US\$	US\$1,000		US\$	S\$1,00		USS	US\$1,000	US\$1,000
30-1			shim Pipeline Project Direct Construction Cost				23,300						17,440	
30-1			-10/9 Project List No. 23)									200.000	0.640	
		30-1-1	Installation, pressure pipeline, embeded steel, D1.4 m	km	9.6			<u> </u>			9.6	900,000	8,640	
	· · · ·	30-1-2	Installation, non-pressure pipeline, embeded RC, D1.2 m	km	10.0			$oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol}}}}}}}}}}}}}}}}}$			10.0	200,000	2,000	
- I		30-1-3	Pump station w/substations	no.	2.0			<u> </u>						
	-	30-1-4	Water pump, 7 m3/s at existing P/S of IKC	set	2.0			<u> </u>				2 400 000	6 000	
		30-1-5	Water pump, 3.5 m3/s at P/S of pipeline	set	2.0						2.0	3,400,000	6,800	
		Total c	lirect constructioncost				23,300	<u> </u>					17,440	
				1 1										<u> </u>
	b)	0&M	Cost per annum			0.010	10/0	<del>                                     </del>	<b>_</b>		180.0	0.048	8,640	
		1)	Cost of raw water in IKC	MCM	90	0.048	4,363	<b></b>			107,146,667	0.048	3,000	<del> </del>
		2)	Energy cost	kwH	53,573,333	0.028	1,488				107,140,007	0.028	3,000	<del> </del>
			output 3,750 kW (3.6x82x9.8/0.75)				<b> </b>		1			ļ		<del>                                     </del>
			hour 7,143 hr 90,000,000/(3.5x3,600)				<b> </b>					<del></del>		<del> </del>
			Energy ######## kw (3,750x7,143x2)					-	<del> </del>			· · · · · · · · · · · · · · · · · · ·		
		3)	Office salary 20-staff x 12-month	m/m	240	208	50	+-			240	208	50	1
		- ·	salary 20-staff x 12-month  Maintenance and repair	LS	1		233	┪					407	
	<u> </u>	4)	Maintenance and repair	<del> </del>				1	1					
	<del></del>	Total	annual operation and maintenance cost	1	<u> </u>	T	6,134	1		6,134			18,231	<b></b>
		10001							1				<u> </u>	
	c)	Total.	Replacement Cost Structure life (year) 10	0			0	1_	<u> </u>	0		<del> </del>	0	
	<del>/-</del>	<del>                                     </del>					<u>                                     </u>	<u> </u>	<u> </u>	<u> </u>		L	<u> </u>	<u> </u>

Table O.4.22 Cost Estimate Sheet for Water Supply Sector, Phase I, II and III (Direct Construction Cost, O&M Cost, and Replacement Cost)

US\$ 1.0=Tenge 144.0=JY 108.0

				Unit	[	2010			2020	Tongo I		2030		2010 to
Co	st Co	de	Descriptions		Q'ty	unit cost	amount	Q`ty		amount	Q'ty	unit cost		2030
						US\$	US\$1,00		US\$	<b>S\$</b> 1,00		US\$	US\$1,000	US\$1,000
		T	Co. Lavina Dingling	<del>                                     </del>	<del> </del>		26,000							
40-1		Construc	ction of 3rd Water Pipeline	<del> </del>										
	L	(No. 01-	0/9 Project List No. 22)	+			(600)	this cos	t included	to cost c	ode 40-	4 and drain	age sector	
40-2			ction of Water Supply and Drainage	<del>-</del>	<u> </u>									
	<u> </u>	Network		<del> </del>	<del> </del>									
	<u> </u>	(No. 01-)	10/9 Project List No. 35)	<del>                                     </del>	<del> </del>		(500)	this cos	t included	to cost c	ode 40-	4		
40-3	ļ	Reconsti	uction of Water Supply and Drainage	<del> </del>	<del> </del>		-							
		Network	s, Water Supply and Sewerage Pump	<del>                                     </del>	<del> </del>		-							
		Station,	WIP	<del>                                     </del>	-									
	L	(No. 01-)	0/9 Project List No. 37)	<del>                                     </del>	<del>                                     </del>	<b>-</b>								
	<u> </u>		The state of the Stage	<del>                                     </del>		<del></del>	95,900							<u> </u>
40-4		Water S	upply, Priority Project, 1st Stage	LS	1	<u> </u>	10,100							
		40-4-1	Intake facilities, 200,000 m3/day	LS	1	-	47,300	<b>-</b>						
		40-4-2	Water treatmennt plant, 100,000 m3/day	LS	1		35,700							
		40-4-3	Water distribution, replacement D100-500 mm x L99 km	155	<del></del>		1	-						
			new D 150-1,800 mm xL75 km	LS	1		2,800							
		40-4-4	Individual water meter, 65,500 pcs, water meter	120	<del>                                     </del>			<b>-</b>		120,400	<u> </u>			
40-5		Water S	upply - 2nd Stage	LS	<del> </del>	<del>                                     </del>	<del> </del>	1		7,600		1		
		40-5-1	Inteke facilities, 150,000 m3/d for civil, 75,000 m3/d for M&E	km		<u> </u>	<del></del>	66		33,700				
	<u> </u>	40-5-2	Raw water transmission pipeline (4th), new D1,400 mm	LS	<del> </del>			1		66,300				
		40-5-3	Water treatment plant, 120,000 m3/day	km	<del>                                     </del>		†	50		12,800				
			Water distribution, new D 500-1,400 mm	KIII	<del></del>	<del> </del>		<del>                                     </del>			<b></b>		55,800	
40-6		Water S	upply - 3rd Stage	LS							1		2,600	
		40-6-1	Intake facilities, 75,000 m3/day for M&E	LS	- <del></del>			<del> </del>			1		47,400	
		40-6-2	Water treatment plant, 100,000 m3/day	km	<del> </del>	<del> </del>		-			40		5,800	
		40-6-3	Water distribution, new D 300-600 mm	KIII	<del> </del>	<del> </del>								
				<del> </del>	<del> </del>	-	120,800	1		120,400	<b>—</b>		55,800	
	a)	Total	Direct construction cost	-	<del> </del>	<del> </del>	120,000	<del>                                      </del>	· · · · · · · · · · · · · · · · · · ·	241,200	<b>T</b>	1	297,000	1
		Cumulat	ive	<del> </del>	<del> </del>	<del> </del>		<del>                                     </del>		1	1			
					<del> </del>		1,974	<del>                                     </del>		2,829	<b>†</b>		3,481	
	b)	Total, O	&M Cost per annum	ord)	<del> </del>		1,2,7,4	<del> </del>	·	<del></del>	1	1		
		(assumed	at US\$0.037/m3 or Tenge 5.3/m3 of treated water from past rec	oru)	<del> </del>	<del> </del>	<del>                                     </del>	<del> </del>		ļ	1			
			legiseement cost Structure life (year) 40	-	<del> </del>	<del> </del>	0	<del> </del>	<del> </del>	0			0	
	c)	Toral, R	eplacement cost Structure life (year) 40	1	<del> </del>	<del> </del>	<del>                                     </del>	<del>                                     </del>	<del> </del>	<del>                                     </del>	<del> </del>	<b>-</b>		
						<u> </u>		L	<u> </u>	<u>.                                    </u>	<u> </u>			

Table O.4.23 Cost Estimate Sheet for Sewerage Sector, Phase I, II and III (Direct Construction Cost, O&M Cost, and Replacement Cost)

US\$ 1.0=Tenge 144.0=JY 108.0

				<del>,</del>					=1enge 14	4.U-J X 1			
Co	st Co		Unit		2010			2020			2030		2010 to
1 2 4		는 이를 '호로하는 것을 많은 말에 전함되는 글로 다 다시다.		Q'ty	unit cost				amount		unit cost	amount	2030
L						US\$1,00			<b>S\$1,</b> 00		US\$	US\$1,000	US\$1,000
50-1	a)	Reconstruction of Water Supply and Drainage Networks, Water Supply &	<u> </u>			(500)	this cost	included	to cost co	de 50-4, 5	0-5 and w	ater supply	
		Sewerage Pump Station, (No. 01-10/9 Project List No. 37)	<u> </u>										
50-2		Reconstruction Sewage Po (No. 01-10/9 Project List No. 63)				(630)	this cost	included	to cost co	de 50-4, 5	0-5 and $w$	ater supply	
						-					<u> </u>		
50-3	a)	Sewerage Treatment Plant Rehabilitation	m3/d	36,000.0		21,200							
50-4	a)	Sewerage Collection System Rehabilitation				14,400							
	L	50-4-1 Sewer pipes, D300-1,500 mm	km	20.0		9,400							
		50-4-2 Pumping station	place	17.0		5,000							
50-5	a)	Sewerage Collection System Expansion (1)				46,400							
		50-5-1 Sewer pipes, D350-1,500 mm w/secondary pipes	km	36.0		41,100							
		50-5-2 Pumping station	m3/h	84.0		5,300				*			
50-6	a)	Sewerage Treatment Plant Expansion (1)	m3/d				40,000		20,000				
50-7	a)	Sewerage Collection System Expansion (2)							65,600				
		50-7-1 Sewer pipes, D350-1,500 mm w/secondary pipes	km			•	50.5		57,500				
		50-7-2 Pumping station	m3/h				84.0		8,100				
50-8	a)	Sewerage Treatment Plant Expansion (2)	m3/d							42,000		21,000	
50-9		Sewarage Treatment Rehabilitation (Full scale)	LS							1		10,000	
50-1	a)	Sewerage Collection System Expansion (3)								·			
		50-10- Sewer pipes, D300-1,500 mm w/secondary pipes	km							36.1		17,100	
		50-10- Pumping station	m3/h							84		4,700	
	a)	Total, Direct Construction Cost				142,800			51,200			52,800	
		Cumulative							294,000			346,800	
	b)	Total Operation and Maintenance Cost per annum				1,551			2,368			2,998	
		(assumed at US\$0.041/m3 or Tenge 5.9/m3 of treated sewerage from past record	)										
	c)	Total Replacement Cost				0			0	***************************************		0	
			I										

Table O.4.24 Cost Estimate Sheet for Storm Water Drainage Sector, Phase I, II and III (Direct Construction Cost, O&M Cost, and Replacement Cost)

2010 to 2030 2020 2010 Unit 2030 Q'ty | unit cost | amount unit cost amount Descriptions O'tv Cost Code unit cost amount O'ty S\$1,00 US\$1,000 US\$ US\$ S\$1.00 US\$ US\$1,00 500 a) Construction of Treatment Statio Direct construction cost 1 % b) O&M Cost per annum per direct construction cost 50 c) Replacement Cost Structure life (year) 29,600 a) Project for the Stormwater Drainage Development & improvement (District No. 1, 2, 3, 4A, 5, 6, 7, 8, 9, 10, 11, 12, 13, 17, central ind., North ind., west ind., and station 40) Direct construction cost 27,000 60-2-1 Construction of pipelines, RC pipe, D600-1,800 mm, L=200 km 2,000 LS 60-2-2 Construction of drainage pump station, 27 places 600 60-2-3 Construction of treatment station, 12 places 296 b) O&M Cost per annum per direct construction cost 1 % 50 c) Replacement Cost Structure life (year) 5,000 Project for Stormwater Drainage in New City Center 60-3 1 % b) O&M Cost per annum per direct construction cost c) Replacement Cost Structure life (year) 60-4 a) Project for Stormwater Drainage develop Direct construction cost 9,250 (District No. 4B, 14, 15, 16, 17, 18, 19, central ind., and Station 40) 8,100 60-4-1 Construction of pipelines, RC pipe, D500-1,200 mm, L=60 km LS 900 1 LS 60-4-2 Construction of drainage pump station, 12 places 250 60-4-3 Construction of treatment station, 5 places 93 b) O&M Cost per annum per direct construction cost 1 % c) Replacement Cost Structure life (year) 2,200 60-5 a) Project for the Stormwater Drainage Develop Direct construction cost 2,000 LS 60-5-1 | Construction of pipelines 150 LS 60-5-2 Construction of drainage pump station 50 LS 60-5-3 Construction of treatment station 22 1 % b) O&M Cost per annum per direct construction cost 50 c) Replacement Cost Structure life (year) 2,200 46.550 9,250 35,100 a) Total, Direct Construction Cost 46,550 44,350 Cumulative 623 601 351 Total Operation and Maintenance Cost per annum 0 c) Total Replacement Cost (The cost of the following projects includes to the project no. 60-1 to 60-5 above) 4,547 note: Const. of stormwater Drainage Syst (No.01-10/9 Project List No. 34) 300 (No.01-10/9 Project list No. 35) Const, of Drainage Network 500 (No. 01-10/9 Project List no. 40) Const. of Treatment Station for Stormwater Drainage System

Table O.4.25 Cost Estimate Sheet for Flood Protection Sector, Phase I, II and III (Direct Construction Cost, O&M Cost, and Replacement Cost)

US\$ 1.0=Tenge 144.0=JY 108.0

	. T	Table C.4.23 Cost Daminate Shoot for 11000 1.							Tenge 14	4.0=JY 108	.0		
	t Code	Descriptions	Unit		2010			2020			2030		2010 to
Coa	R Cour	Descriptions	1 .	Q'ty	nit cos	amount	Q'ty	unit cost	amount	Q'ty	unit cost		2030
	1. 1. 2. 2. 1				US\$	US\$1,00		US\$	S\$1,00		US\$	S\$1,00	US\$1,000
	<del></del>	Ishim River improvement We Direct construction cost	+			6,000							
70-1	a)	of 61 10/0 Parious List No. 22)						-					
I		(No.01-10/9 Project List No. 33) 70-1-  Dredging and channel formation	LS	1		6,000							
L		(Estuary of Ak-bulak river to complex of government building)	<del> </del>	<del>-</del>									
<b> </b>		O&M Cost per annum per direct construction cost 1 %	+		· · · · ·	60			60			60	
	b)	Official Conf. bei attribute bei ett ger germannen ann ann ann ann ann ann ann ann an	<del> </del>	<del>                                     </del>	<del> </del>	0							
	(ه	Replacement cost Structure life (year) 50  Reconstruction of Ishim River Em Direct construction cost	-	<del></del>	<del>                                     </del>	750							
70-2			<del> </del>	<del> </del>	<del> </del>								
$\vdash$		(No. 01-10/9 Project List No.57)	LS	1		750							
		70-2- River embankment (section 4 & 5)	+==	<del> </del>	<del> </del>	8			8			8	
	ъ)	OSC AL CORE DEL MINION DEL CHICOS CONSTRUCTOR CON-	+-			0							
<u> </u>	<u>o)</u>		╂	<del> </del> -	<del> </del>	2,500	ļ. ——-		<del></del>				
70-3	a)	Reconstruction of Bank of Ak-Bulak River (2nd Direct const. Cost		<del> </del>	<del> </del> -	4,500	· · · · · · · · · · · · · · · · · · ·			<del></del>			
		(No, 01-10/9 Project List No.59)	+	<del>                                     </del>	-	25	<del>                                     </del>	<del>                                     </del>	25	<b></b>	<del> </del>	25	
	<b>b</b> )	O&M Cost per annum per direct construction cost 1 %	1	ļ	<del> </del>	0	<del> </del> -	<del></del>			<del>                                     </del>		
	c)	Replacement cost Structure life (year) 50	4	-		U		<del> </del>	<del>                                     </del>	<del> </del>		-	
70-4	a)	lahim River Improvement, L=3.0 k Direct construction cost	1			( 120		<del> </del>	<u> </u>		<u> </u>		
		(Sary-Alka street to confluence of Sarybulak River)	1_	1.140.000	<u> </u>	6,130		-	ļ	<del> </del>	<del>                                     </del>		
		70-4- Excavation (open cut and dredging)	m3	1,150,000	4	4,945			<del></del>	ł <del></del> -		-	
		70-4- Embankment	m3	130,000	3	585			<del></del>	<b>L</b>			
		70-4- Construction of weir, H3.0 m, W170.0 m	LS	1	1	500							
		70-4- Related structures	LS	1	ļ	100		ļ					
	b)	O&M Cost per annum per direct construction cost 1 %		<u> </u>		61			61	ļ		61	
	(2	Replacement cost Structure life (year) 50	<u> </u>	1	<u> </u>	0	ļ	<u> </u>			ļ		
79-5	•)	Jahim River Improvement, L= 14 k Direct construction cost	1	<u>l                                    </u>				<u> </u>	24,800	ļ			
1.2.2		(New City Center to 2nd ring road, Sarybulak River to 2nd ring road)	T		İ			L					
		70-5- Excavation (open cut and dredging)	m3	T			,300,000	4	21,200	<u> </u>			
	-	70-3- Embankment	m3		]		600,000	5	3,000	1			
		70-5- Construction of weir	LS				1		500	<b></b> .			
$\vdash$		70-5- Related structures	LS	Ī	Ι		1		100			<u></u>	
<del>                                     </del>	b)	O&M Cost per annum per direct construction cost 1 %	1	T		0			248			248	
$\vdash$	c).	Replacement cost Structure life (year) 50	1		[ <u> </u>	L'			0				
70-6	a)	Ishim River Improvement, L= 9 k Direct construction cost	1	T				<u> </u>	L			16,100	
/0-0		(2nd ring road to 3rd ring road)		1						L			
<del></del>		70-6- Excavation (open cut and dredging)	m3						L	3,500,000	4	14,000	
<del>  </del>		70-6- Embankment	m3				L	<u></u>		400,000	5	2,000	
		70-6- Related structures	LS	1					L	1		100	
	b)	O&M Cost per annum per direct construction cost 1 %	<del>                                     </del>	1	1	0	[		0			161	
	0)	Replacement cost Structure life (year) 50	1	† <del>-</del>	1		1					0	
	9)	Const. of Flood Regulating Reserv Direct construction cost	1-	1		1	1		1			8,100	
70-7	8)	70-7- Embankment for dike	m3	<del>                                     </del>	1	<b>†</b>		1		1,200,000	5	6,000	
			LS	<del>                                     </del>	<del>                                     </del>	+	1	1		1		2,000	
<b></b> _		70-7- Flood control gate	LS	<del> </del>	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	<u> </u>	T	1		100	
oxdot	L.	70-7- Related structures  O&M Cost per annum per direct construction cost 1 %	+==	<del>                                     </del>	<del>                                     </del>	0		1	0	1	1	81	
	b)	Replacement cost Structure life (year) 50	+	<del>                                     </del>	<u> </u>	<u> </u>	T	1			[	0	
	c)	Repracement cost. Structure me (year)	1	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>						-	
		Translation and	+	<del>                                     </del>	<del> </del>	15,380		1	24,800		T	24,200	64,380
<b>├</b> ──	a)	Total Direct construction cost	+	<del>                                     </del>	<del> </del>	1	<b></b>	1	40,180			64,380	
	ļ	Cumulative	+	<del>                                     </del>	<del>                                     </del>	1	<del>                                     </del>	†	1				
				<del> </del>	<del> </del>	154			402	<del>                                     </del>	<b>T</b>	644	
		Total Operation and maintenance cost per annum	+	<del> </del>	$\vdash$	137	<del> </del>	+	1 0	<del>                                     </del>	<b>-</b>	0	
1	c)	Total Replacement cost			<u></u>			Щ.				<del></del>	<u> </u>

Table O.4.26 (1) Cost Estimate Sheet for Power and Heat Energy Sector, Phase I, II and III (Direct Construction Cost, O&M Cost, and Replacement Cost)
US\$ 1.0=Tenge 144.0=JY 108.0

		Lable U.4.20 (1) Cost Estimate Sheet for a swell and little and specific							Tenge 14	4.0=JY 1		γ	
		Descriptions	Unit		2010			2020			2030		2010 to
Cost		Descriptions	1	O'ty	unit cost	amount	Q'ty	unit cost	amount	Q'ty	unit cost	amount	2030
Code					US\$	US\$1.00		USS	S\$1,00		US\$	US\$1,000	US\$1,000
		To a line Project Direct Const Cost	<del> </del>			(3,900)	(this cost	included	into cost o	ode 80-3	)		
80-1	a)	110/10 kV Substation & Transmission Line Project Direct Const. Cost	+			1		T			<u> </u>		
		(Development of Power Supply System of	<del>   </del>										
		Astana City up to 2007, 1st Stage)	+		<del> </del>	·		ļ		<u> </u>			
		(No. 01-10/9 Project List No. 32)	LS			<del>                                     </del>	<del>                                     </del>			<del></del>			
		80-1- Construction of 110 kV transmission line from airport	120					<del>                                     </del>		<u> </u>	T		
		to left bank of Ishim River (new city center)	LS	1	<b></b>	<del> </del>		<del>                                     </del>			<b>—</b>		
		80-1- Construction of 110/10 kV substation at left bank	Tro		<del> </del>	<del> </del>		<del> </del>	<b>!</b>	<del> </del>			
		Ishim River (new city center)			<del> </del>		<del>                                     </del>	-			<del>                                     </del>		
	b)	O&M Cost per annum per direct construction cost 4 %			<u> </u>	. <u>.                                   </u>			<del>                                     </del>		<del> </del>		
	c)	Replacement cost 50			<del></del>	<del> </del>	<del> </del>				<del> </del>		
	/-		<u> </u>		<u></u>	100 000	<u> </u>	<del> </del> -	· · · · · · · · · · · · · · · · · · ·		<del> </del>		
80-2	B)	Conventional Electric Power & Heat Energy Direct const. Cost				122,000	<del> </del>	<del> </del>			<del> </del>		
50-4		Generating Plant Project					<del> </del>				<del> </del>	<b> </b>	
		80-2- Power and heat energy generating plant in 200 115 MW	set	1		117,300		<u> </u>		ļ	<del></del>		
		90.2. Mendatory spare parts and consumables	set	1		4,700	<del> </del>				1	ļ. <del></del>	
		O&M Cost per annum per direct construction cost 4 %											
	<u>р)</u>	Replacement cost 50						<u> </u>					
	c)	Replacement cost	1				Ĭ						
		Construction for 110 kV Transmission Line & Subst Direct const. Cost	1		1	24,600		Ĭ					
80-3	<u>a)</u>	Construction for 110 KV Traismission Line assess Direct contraction						Ī"	1			1	
		(partly included the Project No. 80-1 above)	km	61.4		12,000							
		80-3- Construction of 110 kV transmission line, underground and overhaed	place	3.0	<b>—</b>	11,700	<b>†</b>	<u> </u>					
1_		80-3- Construction and extension of substations, 110/10 kV	set	1		900		<u> </u>					
		80-3- Mandatory spare parts and consumables	361	<u> </u>	<del></del>	1		<del> </del>				[	
	b)	It is in the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of the sum of th				<del> </del>	<del></del>	<del> </del>	<del></del>		1		****
	c)	Replacement cost 50	<del> </del>		<del> </del>		<del> </del>	<del>                                     </del>			<del></del>		
					<b></b>	<del> </del>		<del> </del>	14,400		<u> </u>		
80-4	a)	Construction of 110 kV Transmission Line & Subst Direct const. Cost	<u> </u>		ļ. —		40.5	<del> </del>	6,200	<del> </del>			
	· · · · · · · · · · · · · · · · · · ·	80-4- 110 kV Transmission line	km			<b></b>			7,600	-		<del> </del>	
		80-4- Substations including extension	place		<del> </del>		2.0	<del> </del>	600	<del> </del>	+	-	
		80-4- Mandatory spare parts and consumables	LS		ļ		1 1	<b>_</b>	600	ļ <del>.</del>	<del></del>		
	b)	O&M Cost per annum per direct construction cost 4 %		<u> </u>					<u> </u>		<b></b>		
	c)	Replacement cost 50			<u> </u>		<b></b>	<u> </u>		ļ <u>-</u> -	<del></del>	<u> </u>	
					<u> </u>				<del> </del>			C 400	· · · · · · · · · · · · · · · · · · ·
80-5	a)	Construction of 110 kV Transmission Line and Subs Direct const. Cost	TI								<b></b>	6,400	
00-3	<u> </u>	80-5- 110 kV Transmission line	km			1		1	<u> </u>	12.7	<b>_</b>	1,900	
	······································	80-5- Substations including extension	place		<u> </u>			<u> </u>	<u> </u>	1	<u> </u>	4,200	·
		80-5- Mandatory spare parts and consumables	LS						1	1		300	L
<b></b> -∤	15	O&M Cost per annum per direct construction cost 4 %										ļ	
	<u>b)</u>	Ozem Cost per annum per circer construction cost	T					ļ	<u> </u>	<u> </u>			
	c)	Replacement cost 30	1		1					1		1	
	:				<b> </b>	146,600	1	T	14,400			6,400	
	a)_	Total Direct construction cost		· · · · · · · · · · · · · · · · · · ·	<del> </del>	1		1	161,000			167,400	167,400
		Cumulative	1	<del></del>	<del>                                     </del>	<del> </del>		1	1				
		Tabel Operation and maintenance cost per applies 4 %	<del> </del>		<del>                                     </del>	5,864	<del> </del>	1	12,304			19,000	
	b)	10th (Operation and mannetenance cost per mercan	+		<del> </del>	3,004	<del></del>	<del> </del>	0		1	0	
	c)	Total Replacement cost		1	<u> </u>	<u> </u>	ــــــــــــــــــــــــــــــــــ		<u> </u>			<u> </u>	·

Table O.4.26 (2) Cost Estimate Sheet for Power and Heat Energy, Phase I, II and III (Direct Construction Cost, O&M Cost, and Replacement Cost)
US\$ 1.0=Tenge 144.0=JY 108.0

					****				Tenge 144	.U=1Y 1U	2030	<del></del>	2010 to
Cost		Descriptions	Unit		2010		<b>X</b> 1.	2020				amount	2010 10
Code				Q'ty		amount	Q'ty		amount	Qʻty		US\$1,000	
					US\$	US\$1,00		US\$	US\$1,000		022	0221,000	0331,000
80-4 T		Repair and Restoration of Abondoned Heat			T	300						1 -	
30-4		Mains and Distribution Networks of the City											
		(No. 01-10/9 Project List No. 38)							·				
		80-4-1 Repair and Restoration of heat mains and distribution	LS	1		300							
		networks			<del>                                     </del>								
	-,-	O&M Cost per annum per direct construction cost 4 %		<del>                                     </del>									
	b)	Desleasment cost Structure life (year) 30			1	<u> </u>							
	c)			├	<del> </del>	1,200						i I	
80-5	#) .	Construction of Heat pump Station No.6		<del></del>	<del> </del>						<u> </u>		
		(No. 01-10/9 Project List No. 41)	LS	1	<del> </del>	1,200					i		
		80-5-1 Heat pump station, No.6		-	ļ	- 1,200			<u> </u>				
l	b)		<del>'                                       </del>	<b>├</b> ──	<del>}</del>	<del>  </del>							
	c)		_}	<u> </u>	<del>                                     </del>	39,100		<del> </del>			_	<del> </del>	
80-6	2)	Project for Extension of Existing District Heating Pipelines to				39,100		<del> </del>			<del>                                     </del>	<del> </del>	
		New City Center and New development Area on the Right	—	<del> </del>	<u> </u>	<b> </b>		<del> </del>	<del></del>				
1		Bank of Ishim River	<del></del>	<del></del>	<del></del>	29 200					<b> </b>	<del> </del>	
		80-6-1 Construction of pipelines	LS	<u> </u>	ļ	38,300				<del></del>	<del> </del>	<del> </del>	<del></del>
		(Extension to new city center and new develop area)		L						ļ	<del> </del>	<del> </del>	
- 1		80-6-2 Mandatory spare parts and consumables	set	1		800		ļ	ļ		<del>-</del>	<del> </del>	<del> </del>
	b)	O&M Cost per annum per direct construction cost 4 "	ó .	<u> </u>				<b></b>		<u> </u>	<del> </del>	<del> </del>	ļ <del></del>
- 1	(ع	Replacement cost Structure life (year) 30		L	· · · · ·					ļ	<del> </del>	ļ	ļ
80-7	a)	Project for Three (3) Heat centers, HC-1, HC-2, and HC-3				53,700		<u></u>	1	<u> </u>		<del>                                     </del>	<u> </u>
		80-7-1 Hot water boilers	set	15		11,700						ļ	<u> </u>
	<del></del>	80-7-2 Buildings	place	3		1,100		Ĺ					
		80-7-3 Pipelines to 3 districts	LS	1		38,800							
- 1		80-7-4 Mandatory spare parts and consumables	set	1	1	2,100							
	b)	O&M Cost per annum per direct construction cost 4 %	6	<b>—</b>				T					
		Replacement cost Structure life (year) 30	<del>-  </del>		<u> </u>	1					I		
60.4	c) .	Natural Gas Firing Combined Cycle Plant		<del>                                     </del>	<del> </del>	1			108,000			140,500	
80-4	a)	80-4-1 Gas turbine combined cycle plant	МW	<del>                                     </del>	<del>                                     </del>	<del> </del>	150		101,000	200		134,400	
		80-4-1   Gas turbine combined cycle plant	LS	<del>                                     </del>	<del> </del> -	<del> </del>	1		4,000	1		5,400	
		80-4-2 Mandatory spare parts and consumables	LS	<del>                                     </del>	<del> </del>	<del> </del>	T i	<del>                                     </del>	3,000	1	<b></b>	700	
		80-4-3 Natural gas pipelines		<del> </del>	<del> </del>			<del> </del>	2,000	<del> </del> -	1	1	
	b)		•	<del> </del>	<del> </del>	· · · · · · · · · · · · · · · · · · ·	<b></b>	<del> </del>			<del>                                     </del>	1	
	c)			<del> </del>	<del>                                     </del>	<del> </del>	-	<del>                                     </del>	52,300		<del> </del>	<u> </u>	<del>                                     </del>
80-6	a)	Construction of Three (3) Heat Centers and Related Pipelines	<del></del>	+	<del> </del>	<del></del>		<del> </del>		<del> </del>			
		on the Left Bank of Ishim River, HC-4, HC-5, and HC-6		<u> </u>	<del> </del>	-	15	<del> </del>	11,700		<del> </del>		
		80-6-1 Hot water boilers	sct	<b>├</b> ──		<del>                                     </del>	3	$\vdash$	1,100	<del> </del>	<del> </del>	<u> </u>	<del>                                      </del>
		80-6-2 Buildings (3 plus 2 extensions)	place	1	<del> </del>	<del> </del>	1	<del>                                     </del>	37,500	<del> </del>	<del> </del>	<del> </del>	<del>                                     </del>
		80-6-3 Pipelines (3 districts plus 2 extensions)	LS		<del> </del>		<del>                                     </del>	<del> </del>	2,000		<del>                                     </del>	<del> </del>	<del> </del>
		80-6-4 Mandatory spare parts and consumables	LS	ļ		ļ	ļ <u>-</u>	<del></del>	2,000		<del> </del>	<del> </del>	<del> </del>
	b)	O&M Cost per annum per direct construction cost 4 9	6		ļ	ļ	ļ	<del> </del>		<del> </del>	<del> </del>	<del> </del>	<del> </del>
_	c)	Penjacement cost Structure life (year) 30		1			ļ	<del>                                     </del>	<del> </del>	<del> </del>		<del> </del>	<del> </del>
80-7	a)	Construction of One (1) Heat center, Extension of Four (4)		1		<b></b>	L	<del> </del>	<del> </del>	ļ	<del> </del>	49,300	<del> </del>
<del>  </del>		Heat centers and Related Pipelines on the Left Bank, I. River					ļ	<u> </u>		<del> </del>	1		<del> </del>
		80-7-1 Hot water boilers	set			1		<u> </u>	<u> </u>	19	<del>                                     </del>	14,800	<del> </del>
		80-7-2 Buildings (1 plus 4 extension)	place				<u> </u>			<u> </u>	<u> </u>	1,400	
<del></del> +		80-7-3 Pipelines (1 district plus extension)	LS						ļ	1	1	31,200	<u> </u>
<del></del>		80-7-4 Mandatory spare parts and consumables	LS							1	1	1,900	L
—	b)	O&M Cost per annum per direct construction cost 4 9	6	T			L	1			<u> </u>		
	c)	Replacement cost Structure life (year) 30		1								<u> </u>	
		Total Direct construction cost	<del></del>	1	1	94,300			160,300			189,800	
	a)	Cumulative		1	<del>                                     </del>	1			254,600			444,400	444,40
——↓		Cuttoraciae		+	<del>                                     </del>		1	<del> </del>	1		1	1	
	<del></del>	Total Operation and Maintenance Cost per annum 4 9	<del></del>	<del> </del>	<del>                                     </del>	3,772	<del>                                     </del>	<u> </u>	10,184			17,776	
•	b)	Total Operation and Mannett Later Control	<del>-   -</del>	<del></del>	+	0,,,,		<del>                                     </del>	0		1	0	1
	c)	Total Replacement Cost											

Table O.4.27 Cost Estimate Sheet for Gas Supply Sector, Phase I, II and III (Direct Construction Cost, O&M Cost, and Replacement Cost)

US\$ 1.0=Tenge 144.0=JY 108.0

					The second			022 170-	Tenge 144	.0 71 100	2020		2010 to
			Unit		2010			2020			2030		2010 0
	Descriptions		Omi	Qʻty	unit cost	amount	Q'ty	unit cost	amount	Q'ty	unit cost	amount	US\$1,0
* .				Qij		US\$1,00		US\$	US\$1,000		US\$	U\$\$1,000	0331,0
		<u></u>				98,000							
) Asta	na City Gas Supply Network Project Direct const. Cost		LS	1.0		0					<b></b>		
90-1	1 Establishment of Gas supply Company		LS	1.0	<del></del>	35,400					<b>├</b> ──-		
G∩_1	-2 Construction of high pressure network		LS	1.0	<del> </del> -	32,000					ļ		
90-1	-3 Construction of low pressure network		LS	1.0		30,600					<b>↓</b>	1 060	
00.1	4 Construction of supplying facilities	2 %	10	1.0		1,960			1,960		<b></b>	1,960	<del></del>
V 081	A Cost per annum per direct construction cost	30		<del> </del>		0			0				
() Repl	acement cost Structure life (year)			<del>                                     </del>	<del> </del>	1						0.500	
-			<del>                                     </del>	<del> </del> -	┼		<u> </u>		17,300		<u> </u>	8,500	
Gas	Supply Network Expansion Project ( Direct const. Cost		LS		<del> </del>		1.0		5,000		<del>                                     </del>	3,800 2,500	
Lan.	1 Fynansion of high pressure network		LS	<del>                                     </del>			1.0	L	6,600		1	2,200	
90-	-2 Expansion of low pressure network		LS	+			1.0		5,700		ļ <u>.</u>	516	
90	3 Expansion of supplying facilities	2 %	1 22	<del>                                     </del>		. 0			346			0	<del> </del>
N 061	A Cost per annum per direct construction cost	30	<del>                                     </del>	<u> </u>	1.			<u> </u>	0				
c) Rep	acement cost Structure life (year)		<del>                                     </del>	<del>                                     </del>		T						8,500	<del> </del>
			┼	1		98,000	I	<u> </u>	17,300			123,800	123
a) Tota	d Direct construction cost		1	1		98,000			115,300	<del>                                     </del>	<del> </del>	123,000	
Cun	nulative	<del> </del>	<del> </del>	1	<del>                                     </del>				1 200		<del> </del>	2,822	<del>                                     </del>
			+	1		1,960	1		2,306			2,022	
b) Tot	Operation and maintenance cost per annum		<del>                                     </del>	+	1	0	]		0		<u> </u>		<del> </del> -
c) Tot	Replacement cost		<del> </del>	<b>†</b>	1					<del> </del>			<del> </del>
c) 10t	ii Replacement cost	<u>.</u>	<del> </del>	<del> </del>		<u> </u>							_

Table O.4.28 Cost Estimate Sheet for Gas Supply Sector, Phase I, II and III (Direct Construction Cost, O&M Cost, and Replacement Cost)

US\$ 1.0=Tenge 144.0=JY 108.0

			Dii	Unit	ï	2010			2020	Tenge 14		2030		2010 to
Cost	1.04		Descriptions	"""	Q'ty	unit cost	amount	Q`ty	unit cost	amount	Q'ty	unit cost	amount	2030
code				1.5	X .7		US\$1,00		US\$	S\$1,00		US\$	<b>S\$</b> 1,00	US\$1,000
100-1	- 6)	Tretalla	tion of Telephones on the Left Ba Direct const. Cost				5,000							5,000
100-1	a)	Tohim D	iver (No.01-10/9 Project List No.36)											
		100-1-	Installation of telephones w/VAT	LS	1		5,000							5,000
	<b>b</b> )	O&M C	ost per annum per direct construction cost 2 %	1			100			100			100	,,,,,
	c)	Replace	ment Cost Structure life (year) 30	i			0							-
		Терисо									, , , , , , , , , , , , , , , , , , ,			
100-2	a)	Astana	New Local Telecommunication N Direct const. Cost				39,597			52,528			38,093	130,218
100-2			Sitching system	LS	1_		7,129	1		9,470	1		6,857	23,456
		100-2-	Transmission system (STM-16 ADM)	LS	1		635	1		844	1		611	2,090
			Digital Loop Carrier Equipment	LS	1		15,348	1		20,388	1		14,762	50,498
			Outside plant	LS	1		14,881	1		19,769	1		14,312	48,962
			Power supply system	LS	1		919	1		1,221	1		884	3,024
			Buildings	LS	1		460	1_	ļ	611	1		442	1,513
_			Training	LS	1		225	1		225	1		225	675
	b)	0&M C	ost per annum				2,653	ļ		5,563			7,882	
;			d at 50 % of current value of Kazakhtelecom)		ļ									
	c)	Replace	ment Cost Structure life (year)		ļ	ļ	0			0			0	
					<u> </u>									
100-3	a)	Admini	stration Data Communication Net Direct const. Cost		ļ	ļ	0.000						<u> </u>	8,862
		(IP Net					8,862	<b> </b>					<del>                                     </del>	8,015
			Capital sub-center system	LS	1		8,015		ļ	<del></del> -	<del></del> -		ļ	847
			IT center system	LS	<del>                                     </del>		847 132			132	-		132	347
	b)	O&M C	ost per annum 3	-	<del></del>	 	132	<b></b>		132			152	L <u></u>
		(assume	d at 20 % of monthly income)	╃	<u></u>		0		<del> </del>				<u> </u>	
	c)	Replace	ment Cost Structure life (year) 30	<u> </u>			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		-	ļ				
				<b></b>	<del> </del>	ļ	53,459	<del> </del>	<del> </del>	52,528			38,093	
	a)		Direct construction cost	-	<del>  -</del>		33,439	<del> </del>		105,987		<del> </del>	144,080	
		cumulat	ive	+	<del> </del>	<del>                                     </del>	<del>  -</del>		<del> </del>	100,707	<del>                                     </del>		271,000	
					<del> </del>		2,885			5,795			8,114	
		Total	Operation and Maintenance cost per annum	<del> </del>	<del> </del>		2,003		<del> </del>	3,75	<del> </del>		0,224	
	c)	Total	Replacement cost	-	<del>                                     </del>		<del>                                     </del>	<del>                                     </del>		<u>°</u>	1		<b> </b>	
		-			<u>.                                    </u>		<u> </u>	<del></del>	ــــــــــــــــــــــــــــــــــــــ	L	<u> </u>	1		

Table O.4.29 Cost Estimate Sheet for Solid Waste Sector, Phase I, II and III (Direct Construction Cost, O Cost and Replacement Cost) (1/3)

US\$ 1.0=Tenge 144.0=JY 108.0 2010 to 2030 2020 2010 Unit Descriptions Cost O'ty unit cost amount 2030 Q'ty unit cost amount Q'ty | unit cost amount code S\$1,00 US\$1,000 US\$ S\$1,00 US\$1.00 US\$ US\$ 17,930 110-1 a) Lanfill-1 Projec Direct construction cost 3,200 110-1-1 Improvement of existing landfill site 3,786 LS % 110-1-2 Construction of landfill-1 (15 ha) 1,554 % LS ī 110-1-3 Machinery for landfill-1 5,785 100 % 110-1-4 Machinery for waste collection & transportation set 2.060 % LS 3 110-1-5 Machinery for city cleaning % LS 1,545 110-1-6 Dendrological center 552 552 552 b) O&M Cost per annum per direct construction cost of 110-1-3 to110-1-6 (calculated by ratio 1-3 % above against direct const. Cost) Operation cost US\$ 254,592 Salaries persons 20 US\$/mth. 208 49,920 landfill worker persons 75 US\$/mth. 208 187,200 collection worker dendrological worker persons 7 US\$/mth. 208 17,472 0 20 c) Replacement cos Structure life (year) 6,178 110-1 a) Landfill-2 Project (phase Direct construction cost 5.559 110-1-1 Construction of landfill-2 (18.3 ha) 619 LS 110-1-2 Machinery for landfill-2 (phase 1) 81 81 b) O&M Cost per annum per direct construction cost of 110-1-2 (calculated by ratio 3 % above against direct const. Cost) Operation cost US\$ 62,400 Salaries 2) persons 25 US\$/mth. 208 62,400 worker 20 c) Replacement cos Structure life (year) 15.526 110-1 a) Landfill-2 Project (phase Direct construction cost 13,972 LS 110-1-1 Construction of landfill-2 (46 ha) 1,554 LS 110-1-2 Machinery for landfill-2 (phase 2) 122 b) O&M Cost per annum per direct construction cost of 110-1-2 (calculated by ratio 3 % above against direct const. Cost) Operation cost US\$ 74,880 Salaries persons 30 US\$/mth. 208 74,880 worker 20 c) Replacement cos Structure life (year) 1,500 Direct construction cost 110-2 a) Hazardous HSW Incinerator Project (1) 1,500 LS 110-2-1 Construction of HHSW incinerator 92 92 92 b) O&M Cost per annum per direct construction cost (calculated by ratio 5 % above against direct const. Cost) Operation cost US\$ 17,472 Salaries 2) US\$/mth. 208 17,472 persons 7 worker 20 c) Replacement cos Structure life (year) 2,500 110-2 a) Hazardous HSW Incinerator Project (2) Direct construction cost 2,500 LS 110-2-1 Construction of HHSW incinerator

Table O.4.29 Cost Estimate Sheet for Solid Waste Sector, Phase I, II and III (Direct Construction Cost, O Cost and Replacement Cost) (2/3)

US\$ 1.0=Tenge 144.0=JY 108.0

				11.		2010		·	2020	Tenge 14	1.0 11	2030		2010 to
Cost			Descriptions	Un		2010	·			0	O'ty	unit cost	amount	2030
code					Q'ty		amount	Q B	unit cost	S\$1,00	40	US\$	\$\$1,00	US\$1,000
		7				USS	US\$1,00	<u> </u>	US\$			034	145	0331,000
	b)	O&M C	ost per annum per direct construction cost 5 %			<u> </u>				145			145	
		1)	Operation cost (calculated by ratio 5 % above against direct const. Cost)			<u> </u>								
			Salaries US\$ 19,968			<u> </u>			,					
			worker persons 8 US\$/mth. 208 19,968											
	-51		ment cos Structure life (year) 20					<u> </u>		0				
	6)	Kepiace.	lifetic cos Bu decide ine () culy											
110.0		111 - A - A	Collection Vehicle ( Direct construction cost		1		1			1,059				
110-3	a)	Waste (	Procurement, machinery for waste collection and transportation	set				18	58,830	1,059				
	_	110-3-1	Procurement, machinery for waste concernor and dansportation			<del> </del>		<del> </del>		331			331	
	<u>b)</u>	O&M C	ost per atmum per direct construction cost			<del> </del>	<del>                                     </del>	<del>                                     </del>						
						<del> </del>	<del> </del>			<del></del>				
		2)				<del> </del>	ļ <del></del> .		ļ			<b></b>		
			worker persons 120 US\$/mth. 208 299,520			ļ	<del> </del>	100	58,830	5,883				
i	c)	Replace	ment cos Structure life (year) 10	set			<del> </del>	100	20,030	C00,c	<del>                                     </del>	-	<del> </del>	<del> </del>
				_		<del> </del>	<del> </del>	<del> </del> -	<del></del>				0	<del> </del>
110-3	<b>a</b> )	Waste (	Collection Vehicle ( Direct construction cost				<b></b>	<b></b>		<del></del>	0	58,830	0	
	<b>-</b> 1	110-3-	Procurement, machinery for waste collection and transportation	set			ļ	<u> </u>					0	
		110-3-	Procurement, machinery for secondary transportation	set				<u> </u>	<u> </u>	ļ	0	58,830	1	
<del></del>	17	O&M C	ost per annum per direct construction cost					1			ļ		275	ļ
<del></del>	· //	1)	Operation cost (calculated by ratio 3 % above against direct const. Cost)			T		l		<u> </u>				
<del>                                     </del>	-	$\frac{1}{2}$	Salaries US\$ 274,560								L			
	$\vdash$	<del>- 2)</del>	worker persons 110 US\$/mth. 208 274,560		_	1	1			ľ				
		<u> </u>		set		<b> </b>	1				114	58,830	6,707	
<u> </u>	c)	Replace	ment cos Structure life (year) 10	-	<del>-  </del> -	<del>                                     </del>		<del>                                     </del>			<u> </u>			
			Disease of the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s	<del></del>	<del>                                     </del>		<del>                                     </del>	<u> </u>		10,000		1		
110-4	a)	Pilot Sc	ale MSW Treatment Project Direct construction cost	set		- <del> </del>	!	<del>l ī</del>		10,000		1		1
		110-4-	Construction of MSW intermediate treatment plant		<del>'                                     </del>	╅	<del>                                     </del>	<del>                                     </del>		750	1		750	
	b)	O&M C	ost per annum per direct construction cost	<u>'</u>	<del> </del>	<del> </del>	<del> </del>	<del> </del>			<del>                                     </del>			† · · · · · · · · · · · · · · · · · · ·
		1)	Operation cost (calculated by ratio 7 % above against direct const. Cost)	—		<del></del>	-	<del>                                     </del>		<u> </u>	<del>                                     </del>		<del> </del>	<del> </del>
		2)	Salaries US\$ 49,920			<b></b>	-	<del>  -</del> -	<del> </del>	0	<del> </del>	<del> </del> -	<del> </del>	<del>                                       </del>
			worker persons 20 US\$/mth. 208 49,920					1		<u>°</u>	<del> </del>	<del> </del>	<del> </del>	<del> </del>
	(2)	Replace	ment cos Structure life (year) 20			<u> </u>	<del></del>	<del></del>		-	<del> </del>	<b></b>	<del> </del>	<del> </del>
											<b></b>		<del> </del>	<u> </u>
110.5	78	New Ci	ty Center Recycling Center pr Direct const. Cost						ļ	80	—	<u> </u>	<del> </del>	<del> </del>
110-3	47	110-5-	Construction of recycling center	m2	2	1	1	400		80	<u> </u>		<b></b>	ļ
<b></b>	۲۷	O&N/ C	Cost per annum per direct construction cost 1 9	5					<u> </u>	26	<u> </u>		26	<u> </u>
<u> </u>	(0)	1)	Operation cost (calculated by ratio 1 % above against direct const. Cost)	一						<u> </u>			<u> </u>	1
<b>└</b>	<b>—</b>	2)	Salaries US\$ 24,960		<b>T</b>	1						<u> </u>	<u> </u>	
		(2)	worker persons 10 US\$/mth. 208 24,960				1	1	1		1			<u> </u>
ļ	L-	L .	worker persons 10 Costitut. 200 24,500				<del>                                     </del>	1	1	0				1
	(c)	керівсе	ement cos Structure life (year) 20	$\dashv$				1	1	1	T			
<u> </u>	<u> </u>		I Direct construction cost	$\dashv$	<del>                                     </del>	<del> </del>	<b>1</b>	1			1		2,457	1
110-6	(a)	MSW T	Trasfer Station Direct construction cost	se		╁╾	+	†	t	<b>†</b>	1		2,457	1
		110-3-	Construction of MSW transfer station		`	<del></del>	╅	+	<del> </del>	<del> </del>	<del>                                     </del>	<del>                                     </del>	99	
	b)	0&M	Jost per annum per uncer construction cost	<u>-</u>	<del> </del>	<del> </del>	<del> </del>	<del> </del>	<del> </del>	<del> </del>	1	+	<del>                                     </del>	1
	T	11	Operation cost (calculated by ratio 3 % above against direct const. Cost)	1	_1			<u> </u>	<u>.                                    </u>		<u> </u>	<u> </u>	1	<u> </u>

Table O.4.29 Cost Estimate Sheet for Solid Waste Sector, Phase I, II and III (Direct Construction Cost, O Cost and Replacement Cost) (3/3)

US\$ 1.0=Tenge 144.0=JY 108.0

	-						OD4 114 T41-0		
<u> </u>			Descriptions	Unit		2010	2020	2030	2010 to
Cost			Descriptions	1	O'ty	unit cost amount	Q'ty unit cost amount	Q'ty unit cost amount	2030
code				· l		US\$ US\$1,00	US\$ S\$1,00	US\$ S\$1,00	US\$1,00
$\neg \tau$	-	2)	Salaries US\$ 24,960						
$\neg$	_		worker persons 10 US\$/mth. 208 24,960						
	c)	Replace	ment cos Structure life (year) 20	-	<u> </u>	<u> </u>	<u> </u>	·	
	_			+-	<del>                                     </del>	19,430	19,817	15,526	
			Direct construction cost	╅	<del>                                     </del>	19,430		54,773	
	_	Cumula	nve	+	<b></b>				
	b)	Total	Operation and Maintenance cost per annum			644	1,977	2,472	
			Repalcement cost			0	5,883	6,707	
+						<u> </u>	<u>l l l l l l l l l l l l l l l l l l l </u>		<u> </u>

Table O.4.30 Unit and Macroscopic Construction Cost and Land Acquisition Cost, Phase I, II and III (The Year of 2000 basis) (1/2)

US\$1.0=Tenge 144.0=JY108.0

					US\$1.0	)=Tenge 144.	0=JY108.0	
Code				-		unit cost	unit cost	source/information
No.	Cost Items	Region / Sector	Type of wo	ork / Specifications	unit	in (US\$)	in (Tenge)	/reference
10	Urban Development	-						
	Land acquisition	Central planning r	egion		m2	2.78	400	Decree No. 576, May 1996
		Northern planning			m2	1.39	200	and market survey data
		Southeastern plan			m2	1.39	200	
		Southern planning			m2	0.69-2.08	100-300	<del> </del>
		Northwestern plan			m2	0.69-1.39	100-200	
		North Calculation	aming telebon			0.07 1.37	100 200	
	Residential	low density		····	m2	200		1) Decree No.566, May 1999
	Residendal	medium density	<del></del>		m2	300		and market survey data
					m2	500	<u> </u>	2) included foundation, interior
		high density		<del></del>	mz	300		and infrastructure facilities
		House	Brick made		m2	10		Survey data
		nouse	Drick made		1112	10		Survey tata
	Office	Residential district	12 14	<del></del>	m2	400		1) Decree No.566, May 1999
	Office	Other district	13 and 14		m2	300		and market survey data
		Critici districi			1112	300		2) included foundation, interior
					<del>                                     </del>			and infrastructure facilities
					<del>                                     </del>		<del> </del> -	and durast octure ractions
	Commercial	all distance		<del> </del>	m2	200	<del> </del>	1) included foundation, interior
	Commercial	all district	2.5	<del>                                     </del>	11112	200	<del> </del>	and infrastructure facilities
			<b> </b>	<b> </b>	<del>  -  </del>	ļ	<del>                                     </del>	and milesufficient (2000003
						. 91, 71	<b>.</b>	
20	(Infrastructures)	Dane	<b></b>	6 lens v 2 75	-		<del> </del>	onen inint stock so
20	Transportation	Road	Construction	6-lane x 3.75 m	km	800,000	<del></del>	open joint stock company
		<del> </del>		4-lane x 3.75 m	km	500,000	<del> </del>	and survey data
			<u> </u>	2-lane x 3.75 m	km	300,000	<del> </del>	
			*	1-lane x 3.75 m	km	200,000	<del>                                     </del>	
	**	*	Improvement	6-lane x 3.75 m	km	400,000	<del></del>	open joint stock company
	Sulfi y seed to			4-lane x 3.75 m	km	300,000	<del>                                     </del>	and survey data
	ļ		<b> </b>	2-lane x 3.75 m	km	230,000	-	<del> </del>
				1-lane x 3.75 m	km	180,000	ļ	<u></u>
	and the state of the		Asphalt pavement	t≠5 cm	m2	6	ļ	Survey data
		Bridge	Construction	RC	m2	1,200		Survey data
			7 */.> , .	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> </u>			1.
	The second second	Tunnel	Construction	4-lane road tunnel	m	75,000		Survey data
		Railway	Construction	Double track	km	800,000	L	Survey data
	3 + + 1			Cargo yard	ha	300,000	<b></b>	Survey data
	and the second			Cargo terminal w/roof, cranes	ha	2,000,000		Survey data
•					<b>_</b>	ļ	(00	<del> </del>
30	Water Resources	Water charge	Raw water	A STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STA	m3	ļ . <b></b>	6,98	committee of w. resource
	A Bay of Large	1	<u> </u>		<u> </u>			6
40	Water supply	Water supply pip	<del></del>	Carbon steel pipe, D1,600 mm	m	350	<u> </u>	Survey data
		(supply cost)	<b> </b>	Carbon steel pipe, D1,400 mm	m	270 190	<del>                                     </del>	Survey data
	<u> </u>			Carbon steel pipe, D1,000 mm	m	·	<del> </del>	Survey data
	· · · · · · · · · · · · · · · · · · ·	ļ	<b> </b>	Ductile iron pipe, D800 mm	m	390 190	<del>                                     </del>	Survey data
	<b>_</b>			Ductile iron pipe, D500 mm	111	90	<del> </del>	Survey data Survey data
	<del>                                     </del>	Water marks also	<u> </u>	Ductile iron pipe, D300 mm	m	50	<del>                                     </del>	Survey data
	<del> </del>	Water supply pip		PVC pipe, D200 mm	<del></del>	<del> </del>	<del> </del>	<del> </del>
		(supply and insta	pation)	PVC pipe, D75 mm	m	10		Survey data
	<b>-</b>	<del> </del>	<del></del>	The state of the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second	<del> </del>	<del> </del> -	<del>                                     </del>	<u> </u>
-	1 - An The Tyle	Potable avetar to	- Collin			£20	1	KT 570,3/m3 in 1991
-	<u> </u>	Potable water tra	сип <b>ен ізсину</b>	5,000 m3 capacity	m3	520	<del> </del>	Astanagorprockt/Kazakhtrans-
	<u> </u>	<del>                                     </del>		<del> </del>	+	<del> </del>	<del> </del>	Astanagorprocki/Kazaknirans-
		Dosella		10,000,50,000,2	<del> </del>	340	<del> </del>	KT 417.9/m3 in 1991
	<b></b>	Potable water tra	eament iscility	10,000-50,000 m3 capacity	m3	340	<del> </del>	
			<del> </del>	<u> </u>	- <del> </del>	<del> </del>	<del> </del>	Astanagorprockt/Kazakhtrans
		<del> </del>	1	100 000 000 000	1.		+	iechmontazh
	<b></b>	Potable water tra	ennent Ischity	100,000-200,000 capacity	m3	250		KT 276/m3 in 1991
	<del>                                       </del>	ļ	ļ		-	<del> </del>		Astanagorprockt/Kazakhtrans
		<del>                                     </del>	<u> </u>	n . c . 10 %	+		+	techmontazh
50	Sewerage	Sewer pipes	1	Reinforced C. Pipe, D1,000 mm	-	135	<del></del>	Survey data
	<b></b>	(supply and insta		Reinforced C. Pipe, D500 mm	m	80	t	Survey data
		Waste water trac	tment fscility	5,000 m3 capacity	m3	450		KT 852/m3 in 1991
			1				-	Astanagorproekt/Kazakhtrans
	<u> </u>	1	1		1	T	T	techmontazh
	1	Waster		10 000 50 000 2 1	1-2	3.00	1	KT 459/m3 in 1991
	<del>                                     </del>	Waste water trac	писи ізсшіу	10,000-50,000 m3 capacity	m3	340	<del> </del>	··  · · · · · · · · · · · · · · · · · ·
		1. 1	<u> </u>			1		Astanagorprockt/Kazakhtrans
_ '	<u> </u>	L	<u></u>			<u></u>		techmontazh
		Waste water trac	tment fscility	100,000-150,000 capacity	m3	230		KT 244/m3 in 1991
	1	1			+==		1	
- :		<del> </del>	<del> </del>	Jane 1	+	1	+	Astanagorproekt/Kazakhtrans
	1 1 2 2 2 2 2 2				+	-	+	techmontazh
60	Stormwater drainage	<b>.</b>	Drainage pipe	RC D500 mm	m	80		Survey data
		ļ	(supply & install.)	RC D1,000 mm	m	135	1	Survey data
						<b>-</b>	1	
	Flood protection		Excavation	river channel, common	m3	4		Survey data
70	From protection							10
70	2 room protection		Dredging	river channel	m3	3		Survey data
70	Provide protection		Dredging Embankment	river dike	m3 m3			Survey data Survey data

Table O.4.30 Unit and Macroscopic Construction Cost and Land Acquisition Cost, Phase I, II and III (The Year of 2000 basis) (2/2)

US\$1.0=Tenge 144.0=JY108.0

ode						~ 1 CINC 144		
UNIC						unit cost	unit cost	source/information
lo.	Cost Items	Region / Sector	Type of wo	rk / Specifications	unit	in	in	/reference
	1				i	(USS)	(Tenge)	
+	771 4 5 5 4 4 7 7	T	Construction	110 kV transmission line	km	150,000	(50.450)	Survey data
<u>0  </u>	Electric & heat energy	Transmission line	Construction		KRII			Survey uata
				(under ground and verhead)		ю 190,000		
	<u>.</u>			150 kV transmission line	km	190,000		1994, Indonesia
Т				(double circuit, 2x429 mm2)	- 1	* -		
				70 kV transmission line	km	96,000		1994, Indonesia
$\dashv$	<del></del>			(ACSR, double circuit)		,		
-+		<del></del>			km	16 000		KT 15,000/km in 1991
				10 kV transmission line	KITI	15,000		
_1								Astanagorproekt
- 1		Substation	Construction	110/10 kV substation	place	4,000,000		Survey data
				Conventional substation	place	6,800,000		1994, Indonesia
一				(500 kV one complete line)				
				GIS (gas insulated switchgear)	place	6,700,000		1994, Indonesia
$\dashv$					Prove	4,700,000		1771, 111401170111
_				(150 kV complete line)				amena a di di dan dan dan dan dan dan dan dan dan dan
1		Generating cost	1-kWh at source	Hydropower	kWh		0.3-0.8	MEIT (Ministry of Energy,
				Gas	kWh		1.5-1.7	Industry and Trade), 1998
T				Coal	kWh		1.4-1.5	including 20 % VAT
_				Oil	kWh		1.6	MEIT
-+	<del></del>		<b> </b>	Stand alone diesel system	kWh		4-8	MEIT
-			1 LUZh at anuar -	Drama and to decade 37300111	kWh		0.8	Survey data
	* * * * * * * * * * * * * * * * * * * *	· · · · · · · · · · · · · · · · · · ·	1-kWh at source	<u> </u>			700	w/VAT, Survey data
			Coal as fuel		ton			W/VAI, Survey usus
			Heavy oil as fuel	<u> </u>	ton	1. 1	7,320	w/VAT, Survey data
		Distribution and t	ransmission cost	·	kWh	11	0.22-1.5	
		Boiler	Hot water boiler	Procure. & installation	set	780,000		Survey data
90	Gas supply	Pipes	High pressure pipe	Carbon steel	m		i	Survey data
<del></del> -		177	Low pressure pipe	Carbon steel	m			Survey data
		<del>                                     </del>	Don product part					
OD.	T-1iti	T-lamban Kas			km	20,000		KT 22,000/km in 1991
00	Telecommunication	Telephon line			KITI	20,000	<del></del>	
			The second of					Astanagorproekt
310								
10	Solid waste	Machinery	Procurement cost	waste collection vehicle, 11 t	umit	58,000		Survey data
10	Solid waste	Machinery	Procurement cost	waste collection vehicle, 11 t	unit	38,000		Survey data
10					m	38,000		Survey data D2,000 mm
10	Solid waste  Common to architecture		Procurement cost  Foundation pile	Cast-in-place RC pile	m			
10			Foundation pile	Cast-in-place RC pile RC 300x300 mm,  =5 m	m nos.	170		D2,000 mm 400x400 mm
10				Cast-in-place RC pile RC 300x300 mm, l=5 m fc=14 Mpa	m nos. m3	170 80	:	D2,000 mm 400x400 mm Survey data wo/form & bar
10			Foundation pile	Cast-in-place RC pile RC 300x300 mm, I=5 m fe=14 Mpa fc=21 Mpa	m nos. m3 m3	170 80 120		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar
10			Foundation pile Concrete	Cast-in-place RC pile RC 300x300 mm, I=5 m fe=14 Mpa fc=21 Mpa fc=35 Mpa	m nos. m3 m3	170 80 120 150		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar
10			Foundation pile Concrete Reinforcement bar	Cast-in-place RC pile RC 300x300 mm, l=5 m fc=14 Mpa fc=21 Mpa fc=35 Mpa procurement & bending	m nos. m3 m3 m3	170 80 120 150 835		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data
10			Foundation pile Concrete	Cast-in-place RC pile RC 300x300 mm, 1=5 m fc=14 Mpa fc=21 Mpa fc=35 Mpa procurement & bending wooden	m nos. m3 m3 m3 ton	170 80 120 150 835		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar
10			Foundation pile Concrete Reinforcement bar	Cast-in-place RC pile RC 300x300 mm, l=5 m fc=14 Mpa fc=21 Mpa fc=35 Mpa procurement & bending	m nos. m3 m3 m3	170 80 120 150 835		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data
10			Foundation pile Concrete Reinforcement bar	Cast-in-place RC pile RC 300x300 mm, 1=5 m fc=14 Mpa fc=21 Mpa fc=35 Mpa procurement & bending wooden	m nos. m3 m3 m3 ton	170 80 120 150 835		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data
10	Common to architecture		Foundation pile  Concrete  Reinforcement bar Formwork	Cast-in-place RC pile RC 300x300 mm, l=5 m fe=14 Mpa fe=21 Mpa fe=35 Mpa procurement & bending wooden metal	m nos. m3 m3 m3 ton m2 m2	170 80 120 150 835 12		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data
10	Common to architecture		Foundation pile  Concrete  Reinforcement bar Formwork  Excavation	Cast-in-place RC pile RC 300x300 mm, 1=5 m fo=14 Mpa fc=21 Mpa fc=25 Mpa procurement & bending wooden metal common	m nos. m3 m3 ton m2 m2 m3	170 80 120 150 835 12 17 4		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data
10	Common to architecture		Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment	Cast-in-place RC pile RC 300x300 mm, 1=5 m fo=14 Mpa fc=21 Mpa fc=25 Mpa procurement & bending wooden metal common	m nos. m3 m3 ton m2 m2 m3 m3 m3	170 80 120 150 835 12 17 4 7		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data
10	Common to architecture		Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment Backfill	Cast-in-place RC pile RC 300x300 mm, l=5 m fe=14 Mpa fc=21 Mipa fc=35 Mpa procurement & bending wooden metal common rock	m nos. m3 m3 ton m2 m3 m3 m3 m3 m3	170 80 120 150 835 12 17 4 7 5		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data
10	Common to architecture		Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment Backfill  Procurement, pipe	Cast-in-place RC pile RC 300x300 mm, l=5 m fe=14 Mpa fe=21 Mpa fe=35 Mpa procurement & bending wooden metal common rock  CSP, D1,600 mm	m nos. m3 m3 ton m2 m3 m3 m3 m3 m3 m3 m	170 80 120 150 835 12 17 4 7 5 3		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data
10	Common to architecture		Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment Backfill  Procurement, pipe Procurement, pipe	Cast-in-place RC pile RC 300x300 mm, 1=5 m fe=14 Mpa fe=21 Mpa fe=35 Mpa procurement & bending wooden metal common rock  CSP, D1,600 mm DIP, D600 mm	m nos. m3 m3 ton m2 m3 m3 m3 m3 m3 m	170 80 120 150 835 12 17 4 7 5 3 3 350	1 2	D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data
10	Common to architecture		Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment Backfill  Procurement, pipe	Cast-in-place RC pile RC 300x300 mm, l=5 m fe=14 Mpa fe=21 Mpa fe=35 Mpa procurement & bending wooden metal common rock  CSP, D1,600 mm	m nos. m3 m3 ton m2 m3 m3 m3 m3 m3 m3 m	170 80 120 150 835 12 17 4 7 5 3 3 350 250	1 2	D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data
10	Common to architecture		Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment Backfill  Procurement, pipe Procurement, pipe	Cast-in-place RC pile RC 300x300 mm, 1=5 m fe=14 Mpa fe=21 Mpa fe=35 Mpa procurement & bending wooden metal common rock  CSP, D1,600 mm DIP, D600 mm	m nos. m3 m3 ton m2 m3 m3 m3 m3 m3 m	170 80 120 150 835 12 17 4 7 5 3 3 350	1 2	D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data
10	Common to architecture		Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment Backfill  Procurement, pipe Procurement, pipe	Cast-in-place RC pile RC 300x300 mm, 1=5 m fe=14 Mpa fe=21 Mpa fe=35 Mpa procurement & bending wooden metal common rock  CSP, D1,600 mm DIP, D600 mm Gate, penstock for hydropower	m nos. m3 m3 ton m2 m3 m3 m3 m3 m3 m3 m3 m	170 80 120 150 835 12 17 4 7 5 3 3 350 250 3,300 1,700		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data 1997, Indonesia 1998, Indonesia
10	Common to architecture	e & infrastructures	Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment Backfill Procurement, pipe Procurement, pipe Metal work	Cast-in-place RC pile RC 300x300 mm, l=5 m fc=14 Mpa fc=21 Mpa fc=35 Mpa procurement & bending wooden metal common rock  CSP, D1,600 mm DIP, D600 mm Gate, penstock for hydropower project	m nos. m3 m3 m3 ton m2 m2 m3 m3 m3 m3 m3 m5 m1 ton ton	170 80 120 150 835 12 17 4 7 5 3 3 350 250 3,300 1,700 2,600		D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data
10	Common to architecture	e & infrastructures  Power tariffs of	Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment Backfill Procurement, pipe Procurement, pipe Metal work  Households	Cast-in-place RC pile RC 300x300 mm, l=5 m fc=14 Mpa fc=21 Mpa fc=35 Mpa procurement & bending wooden metal common rock  CSP, D1,600 mm DIP, D600 mm Gate, penstock for hydropower project  Families and small enterprises	m nos. m3 m3 m3 ton m2 m3 m3 m3 m3 m5 m5 ton ton ton kWh	170 80 120 150 835 12 17 4 7 5 3 3 350 250 3,300 2,600	2.87	D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data 1997, Indonesia 1998, Indonesia 1998, Victnam average, MEIT 1998
10	Common to architecture	e & infrastructures	Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment Backfill Procurement, pipe Procurement, pipe Metal work  Households Small industry	Cast-in-place RC pile RC 300x300 mm, 1=5 m fe=14 Mpa fe=21 Mpa fe=35 Mpa procurement & bending wooden metal common rock  CSP, D1,600 mm DIP, D600 mm Gate, penstock for hydropower project  Families and small enterprises Connection <750 kW	m nos. m3 m3 m3 ton m2 m3 m3 m3 m3 m4 ton ton ton ton kWh	170 80 120 150 835 12 17 4 7 5 3 350 250 3,300 1,700 2,600	2.87 3.53	D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data 1997, Indonesia 1998, Indonesia 1998, Victnam average, MEIT 1998 average, MEIT 1998
10	Common to architecture	e & infrastructures  Power tariffs of	Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment Backfill Procurement, pipe Procurement, pipe Metal work  Households Small industry Large industry	Cast-in-place RC pile RC 300x300 mm, 1=5 m fe=14 Mpa fe=21 Mpa fe=35 Mpa procurement & bending wooden metal common rock  CSP, D1,600 mm DIP, D600 mm Gate, penstock for hydropower project  Families and small enterprises Connection <750 kW Connection >750 kW	m nos. m3 m3 m3 ton m2 m3 m3 m3 m3 m ton ton ton ton kWh kWh	170 80 120 150 835 12 17 4 7 5 3 3 350 250 3,300 1,700 2,600	2.87 3.53 3.14	D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data 1997, Indonesia 1998, Indonesia 1998, Indonesia 1998, Urcham sverage, MEIT 1998 average, MEIT 1998
110	Common to architecture	e & infrastructures  Power tariffs of	Foundation pile  Concrete  Reinforcement bar Formwork  Excavation  Embankment Backfill Procurement, pipe Procurement, pipe Metal work  Households Small industry	Cast-in-place RC pile RC 300x300 mm, 1=5 m fe=14 Mpa fe=21 Mpa fe=35 Mpa procurement & bending wooden metal common rock  CSP, D1,600 mm DIP, D600 mm Gate, penstock for hydropower project  Families and small enterprises Connection <750 kW Connection >750 kW	m nos. m3 m3 m3 ton m2 m3 m3 m3 m3 m4 ton ton ton ton kWh	170 80 120 150 835 12 17 4 7 5 3 3 350 250 3,300 1,700 2,600	2.87 3.53	D2,000 mm 400x400 mm Survey data wo/form & bar Survey data wo/form & bar Survey data wo/form & bar Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data Survey data 1997, Indonesia 1998, Indonesia 1998, Victnam average, MEIT 1998 average, MEIT 1998

Table O.4.31 (1) Charges for Construction Workers (wage, salary and allowances, assumed)

US\$ 1.0 = KT 144 = JY 108

Items		unit rate	Remarks
	unit	tenge/day	
Construction Worker	<b>,</b>		
Foreman	day	1,300	
Operator	day	1,100	
Driver	day	1,000	·
Mechanic	day	1,200	
Electrician	day	1,570	
Carpenter	day	1,500	
Reinforcement Worker	day	1,590	
Concrete Worker	day	1,364	
Common Labor	day	1,230	
Piping Fitter	day	1,700	
Welder	day	1,600	
Masonry Worker	day	1,400	
Rigger	day	1,500	
Supervisor (expatriate)	day	2,5 4 4	see Table 6.4.32
Supervisor (local)	day	3,636	
Supervisor (locar)	day	3,000	
Operation and Maintenance Staff			
Manager	day	1,000	
	day	800	
Assistant Manager	day	1,000	L
Accountant	<del>-</del>	500	
Administration Staff	day	600	
Engineer	day	500	l
Pump & Plant Operator	day	350	
Driver	day	4	
Mechanics	day	700	<del></del>
Welder	day	700	
Pipe Fitter	day	700	1
Electrician	day	80	I
Common Labour	day	300	
Laboratory Engineer	day	1,000	
Laboratory Staff	day	800	I
Clerk	day		depend on category
	2.25.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
# 2 F 1			
		Maria de la companya	<u> </u>
Service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the service of the servic			3
			Activities and the second

Source: Kazakhtranstechmontazh, 2000

Table O.4.31 (2) Resource and Unit Prices of Major Construction Materials, Preliminary

US\$ 1.0 = KT 144 =

	•					ODW 1.0 111 111			
	<del></del>	resource		<del></del>	unit cost (	tenge/unit)	JY108		
	1 / Y	Place	Distance	unit	1991	2000	2000/1991	Remarks	
Items	ocal / Impor	Astana, Karaganda, etc		ton	45.14	3,000	66		
cemment	local	Astana, Karaganda, etc. Astana	50km	m3	11.50	-			
fine aggregates	local	Astana	120km	m3	20.00				
course aggregates	local		IZUMII	m3	38.00	4,800	126		
ready mixed concrete(market)	local	Astana, Temirtau	200km	ton	357.00	45,000			
reinforcing bar, deformed	local	Temirtau	200km	ton	753.76	48,000			
structural steel, H-shaped	local	Temirtau	200km	ton	753.76	-		1	
structural steel, C-shaped	local	Temirtau	200km	ton	542.08	45,000	83		
structural steel, plate	local	Temirtau	ZUUKIII	ton	37.30	-			
asphalt concrete	local	Astana			14.48				
cast iron pipe for sewer, 200dia	local	Astana *		m	47.88		<del>                                     </del>		
cast iron pipe for sewer, 500dia	local	Astana *		m	56.1				
RC pipe for potable water, 800dia	import	Russia *	·	m	79.3				
RC pipe for potable water, 1000dia	import	Russia *		m	19.3			see table 6.4.30	
screen	import	Russia			-		<del></del>	see table 6.4.30	
gate and valve	import	Russia		ļ <u> </u>	-			see table 6.4.30	
pump and motor	import	Russia			-		<u>'</u>	see table 6.4.30	
instrument equipment	import	Russia				2.500	<u> </u>	ASB-10KV, 3X240	
cable for electric power	import	Russia		m	-	2,500	· · · · · · · · · · · · · · · · · · ·	ASB-TORV, SAZ TO	
cable for electric instrument	import	Russia		m		1,200			
Diesel Oil	local	Astana		liter		45			
Gasoline	local	Astana		liter	_	_ 57	<del></del>		
Electric Supply	local	Astana		kWhr	-	4	-		
Electric Supply						ļ			
				1.00					
							<u> </u>	<u></u>	

Source:

Astanagorproekt, 1991 Kazakhtranstechmontazh, 2000 \*: further clarification is required

## Table O.4.31 (3) Equipment Cost

US\$ 1.0 = KT 144 = JY108

Items	capacity			Remarks			
		unit	1991(AKIMAT)	2000(KTTM)	2000(A		
		\$ 1	tenge/unit	tenge/unit	US\$/unit	tenge/unit	11 1 1
Construction Equipment						-	
Bulldozer	11 ton	Hour	5.87	1,000	10	1,440	: 7
Bulldozer	21 ton	Hour	11.5	1,500	13	1,872	
Backhoe	0.35 m3	Hour	5.95	1,000	8	1,152	,
Backhoe	0.70 m3	Hour	7.86	2,000	- 12	1,728	in the second
Backhoe	1.30 m3	Hour	12.9	3,000	11	1,584	
Wheel Loader	1.40 m3	Hour	4.23	1,500	18	1	
Wheel Loader	2.30 m3	Hour	4.23	1,800	28	4,032	
Dump Truck	4 t	Hour	8.5	1,000	-		
Dump Truck	11 t	Hour	8.5	2,200	-	-	1 1 1
Truck Crane	20 t	Hour	10.1	-			
Truck Crane	32 t	Hour	24		-	-	
Crawler Crane	50 t	Hour	16,6			-	
Crawler Crane	100 t	Hour	49.1				
Cargo Trailer	10 t	Hour	8.5	<u> </u>			
Cargo Trailer	20 t	Hour	8.5				
Vibration Roller	10 t	Hour	5.99		5	<u> </u>	
Tire Roller	8/20 t	Hour	3.95/9.49	<del></del>	<del></del>		
Motor Grader	3.1 m	Hour	6.63		10	1,440	
Asphalt Finisher	2.5/5.0 m	Hour	10.5			-	
Pick Up Truck	1 t	Hour	4.23	-	<u> </u>	•	
					ļ		
				1	<u> </u>	44.754	** * *
			<del> </del>	<del> </del>	<del></del>	<u> </u>	
	ļ	<u> </u>	<u> </u>		ļ ——	<del>                                     </del>	<del> </del>
	<u> </u>		ļ		<del> </del>	<del>                                     </del>	1 - 1 - 1 - 1
	<b>_</b>		<u> </u>	1.41	<del> </del>		
		-		1 1	<del>                                     </del>		
Carrier -	1	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	1

Source:

Astanagorproekt, 1991 Kazakhtranstechmontazh, 2000 AHSEL, 2000 Table O.5.1 (1) Annual Basis Operation and Maintenance Cost in Phase I (2001-2010)

unit: US\$ thousand US\$ 1.0=Tenge 144.0=JY108.0 Phase I (2001-2010) new (n) or section 2009 2010 Region / Sector 2008 2007 2005 2006 2003 2004 Code 2002 2001 improve (I) 20,138 20.138 20,138 No. 20,138 20,138 20,138 20,138 20,138 20,138 20,138 10 Townscape and Architectures (Maintenance Cost) 1.339 1,339 1,339 1.339 1,339 1.339 1,339 1,339 1,339 1,339 Central Planning Region 63 63 63 63 63 63 63 63 63 63 Northern Planning Region 10.005 10,005 10,005 10,005 10-2 10,005 10,005 10,005 10.005 10,005 10,005 Southeastern Planning Region 8,504 8,504 8,504 8,504 10-3 8,504 8,504 8,504 8,504 8,504 8,504 Southern Planning Region 227 227 227 10-4 227 227 227 227 227 227 227 Northwest Planning Region 10-5 24,647 24,647 24,647 18,318 21,855 23,725 17,357 18,194 17,357 14,290 Infrastructures (Operation and Maintenance Cost) 20 Transportation 150 150 150 150 150 0 sp-2, 3 0 Special road 350 350 20-1 350 350 350 350 350 . 0 sp-1 Main streets of City Importance/Main road 2,665 2,665 20-2 2,665 1,333 1.333 2,665 2,665 1.333 1,333 a-1 to a-10 1.333 Main streets of City Importance/Main road n & I < 1 652 652 652 652 652 326 326 326 Main streets of City Importance/Primary road in & I < 1 326 p-1 to p-1 326 936 20-3 936 936 936 468 468 468 468 468 468 Main streets of Regional Importance n & I < 1 s-1 to s-46 20-4 270 270 270 0 270 0 TR1, 2, 3 Streets and Roads of Local Importance o i 20-5 248 248 248 248 124 248 248 124 124 124 n & I < 1 Trolley Bus Project 20-6 147 147 147 147 147 0 0 0 b-2 to b-2 o i Bridge 20-7 1,108 1,108 ٥ 0 1,108 0 0 f-3 to f-15 Bridge 20-8 0 0 0 0 0 t-1 20-9 Tunnel 0 0 0 0 0 L-1, 2, 3 0 Light Railway Transit 20-10, 11, 12 14 14 0 14 0 0 T-1 to T-5 0 Terminal 20-13 to 17 0 0 0 Traffic Management 20-18 to 21 0 ٥ 0 0 . 0 20-22 to 24 Railway 975 975 975 975 488 975 975 975 488 488 n & I < 1 Astana Airport 20-25 7,515 7,515 7,515 6,393 3.576 3,700 5,655 2,738 2,738 2,738 Sub total per annum 6,134 6.134 6,134 6,134 6,134 6.134 6,134 3,067 6.134 6.134 30 Water Resources 1.974 1,974 2,235 2,235 2,235 1,974 2.235 2,235 2,235 2.235 <2 40 Water Supply 1,551 1,551 1,490 1,551 1,490 1,490 1,490 1,490 <3 1,490 1,490 50 Sewerage 18 18 18 18 18 18 18 <4 18 18 18 60 Stormwater Drainage 15 154 154 154 154 15 154 15 15 <5 15 70 Flood Protection 3,772 3,772 3,772 3,772 2,640 2,640 2,640 2,640 2,640 2,640 <6 80 Electric Power and Heat Supply 0 90 Gas Supply 2,885 2,885 2,885 1,443 2,885 2,885 1.443 <7 1.443 1,443 1,443 100 Telecommunication 644 644 644 644 644 644 644 644 644 644 110 Solid Waste 44,785 44,785 44,785 38,456 41,993 43,863 37,495 38,332

34,428

37,495

note <1	assumed 50 % for improvement works and as O & M cost before completion of the project
<2, <3	assumed 50 % for mater supply and 40 % for sewerage from the total O & M cost of Tenge 536,4441 thousand in 1999 till the eyear 2007 assumed 60 % for water supply and 40 % for sewerage from the total O & M cost of Tenge 536,4441 thousand in 1999 till the eyear 2007
<4	for the year 2001 to 2010, assumed 5 % of the O & M cost (US\$ 351,000) in 2011 for the existing facilities

for the year 2001 to 2005, assumed 10 % of the O & M cost (US\$ 351,000) in 2006 for the existing facilities <5

200 Total per annum

for the year 2001 to 2006, assumed 70 % of the O & M cost (US\$ 3,772,000) in 2007 for the existing facilities <6 for the year 2001 to 2005, assumed 50 % of the O & M cost (US\$ 2,885,000) in 2007 for the existing facilities <7

Table O.5.1 (2) Annual Basis Operation and Maintenance Cost in Phase II (2011-2020)

US\$ 1.0=Tenge 144.0=JY108.0 unit: US\$ thousand

No.	Code						Phase II (2011-2020)								
10-1   Central Flanning Region			Trabian L pastor		4.4	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
10-1   Central Planning Region   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,237   4,2		Tarraca na an	A Architectures (Maintenance Cost)			39,926	39,926	39,926	39,926	39,926	39,926	39,926	39,926	39,926	39,926
10-2   Northern Planning Region   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394   394	10		Central Planning Region	<u> </u>				4,237	4,237	4,237	4,237				4,237
10-3   Southeastern Planning Region   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716   14,716	<b> </b>					394	394	394	394	- 394	394	394	394	394	394
10-5   Southern Flamming Region   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,703   15,	<u> </u>				-:	14.716	14,716	14,716	14,716	14,716	14,716	14,716	14,716	14,716	14,716
10-5   Northwest Planning Region   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4,876   4							15,703	15,703	15,703	15,703	15,703	15,703	15,703	15,703	15,703
Infrastructures (Operation and Maintenance Cost)   33,828   33,128   35,161   39,276   39,276   42,685   45,120   45,466   45,466   51,33							_	4,876	4,876	4,876	4,876	4,876	4,876	4,876	4,876
Infrastructures (Operation and Maintenance Cost)   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   1	<b></b>	10-3	Mordiness I temping region												
Transportation   20-1   Special road   n   sp-2,3   150   150   150   150   150   150   150   150   150   150   150   20-1   Main streets of City Importance/Main road   n   sp-1   350   350   350   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700	<b>  </b>	Y- function of the	(Operation and Maintenance Cost)		<u> </u>	33,828	33,828	35,161	39,276	39,276	42,685	45,120	45,466	45,466	51,330
20-1   Special road   n   Sp-2, 3   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   150   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120			(Operation and Mannerance Cost)				•								
Main streets of City Importance/Main road   n & I <   390   330   330   330   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700   700			Special road	n	sp-2, 3	150	150	150	150	150	150	150	150		150
Main streets of City Importance/Main road   n & I < 1   a-1 to a-10   2,665   2,665   2,665   2,665   2,665   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035   3,035						350	350	350	700	700	700				700
20-3   Main streets of City importance/Primary road   n & I < 1   p-1 to p-1   652   652   652   652   652   1,337   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537   1,537	<b></b> -	20-2		n & I <1		2,665	2,665	2,665	2,665	2,665	3,035				3,035
20-4   Main streets of Regional Importance   n & I < l   s-1 to s-46   936   936   936   936   936   2,649   2,649   2,649   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049   2,049		20.3		n & I <1	p-1 to p-1		652	652	652	652	1,537	1,537	1,537	1,537	1,537
20-5   Streets and Roads of Local Importance   TR1, 2, 3   270   270   270   270   270   270   990   990   990   990   990   20-6   20-6   Trolley Bus Project   n & I <   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   2	1		Avidant But dotte dr. date, and a series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of			936	936	936	936	936	936	2,649	2,649	2,649	2,649
20-6   Trolley Bus Project   n & I <   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   248   2	L					270	270	270	270	270	270	990	990	990	990
20-7   Bridge   n   b-2 to b-2   147   147   147   147   147   284   284   284   284   284   284   294   294   20-8   20-8   Bridge   n   f-3 to f-15   1,108   1,108   1,108   1,108   1,108   1,198   1,198   1,198   1,198   1,198   20-9   Tunnel   n   t-1   0   0   0   0   0   0   0   0   0				n & I < l		248	248	248	248	248	248	248	248	248	248
20-8					b-2 to b-2	147	147	147	147	147	284	284	284	284	284
20-9   Tunnel   n   t-1   0   0   0   0   0   0   0   0   0				n	f-3 to f-15	1,108	1,108	1,108	1,108	1,108	1,198	1,198	1,198	1,198	1,198
20-10, 11, 12   Light Railway Transit   n   L-1, 2, 3   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,260   6,26				n		0	0	0	0	0	0	0	<u> </u>	0	0
20-13 to 17   Terminal   n   T-1 to T-5   14   14   14   14   14   14   14   1				n	L-1, 2, 3	6,260	6,260	6,260	6,260	6,260	6,260	6,260			6,260
20-18 to 21   Traffic Management   n   80   80   80   80   80   80   80				n	T-1 to T-5	14	14	14	14	14	14	16	16		16
20-22 to 24   Railway   n			Traffic Management	n		80	. 80	80	80	80					80
20-25   Airport   n & I <   Astana   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975   975				n		0	0								612
Sub total per annum				n & I < 1	Astana	975	975		975		7.7		,		975
30 Water Resources						13,855	13,855	13,855							
1,974   1,974   1,974   1,974   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,829   2,82	30					6,134	6,134	6,134							6,134
50 Sewerage       1,551       1,551       1,551       1,551       1,551       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368       2,368						1,974	1,974	1,974							2,829
60 Stormwater Drainage       351       351       351       351       351       351       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       601       602       601       602       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       402       4						1,551	1,551	1,551							2,368
70         Flood Protection         154         154         154         154         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402         402			inage			351		351							601
80 Electric Power and Heat Supply 4,320 4,320 4,320 4,320 4,320 4,320 4,320 4,320 10,18 90 Gas Supply 1,960 1,960 1,960 1,960 1,960 1,960 1,960 2,306 2,306 2,306 100 Telecommunication 2,885 2,885 2,885 5,795 5,795 5,795 5,795 5,795 5,795 110 Solid Waste 644 644 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977															402
90 Gas Supply     1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   2,306   2,306   2,306   2,306   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,960   1,					٧.										
100   Telecommunication     2,885   2,885   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795   5,795						1,960									2,306
110 Solid Waste 644 644 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977 1,977			tion	·		2,885									5,795
70.207 70.207 70.207 70.207 93.41 95.045 95.307 91.75						644	644	1,977	1,977	1,977	1,977	1,977	1,977	1,977	1,977
200 Total per annum 73,754 73,754 75,087 79,202 79,202 82,611 85,046 85,392 85,392 91,24															
	200	Total per annu	Un			73,754	73,754	75,087	79,202	79,202	82,611	85,046	85,392	85,392	91,256